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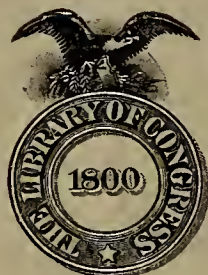


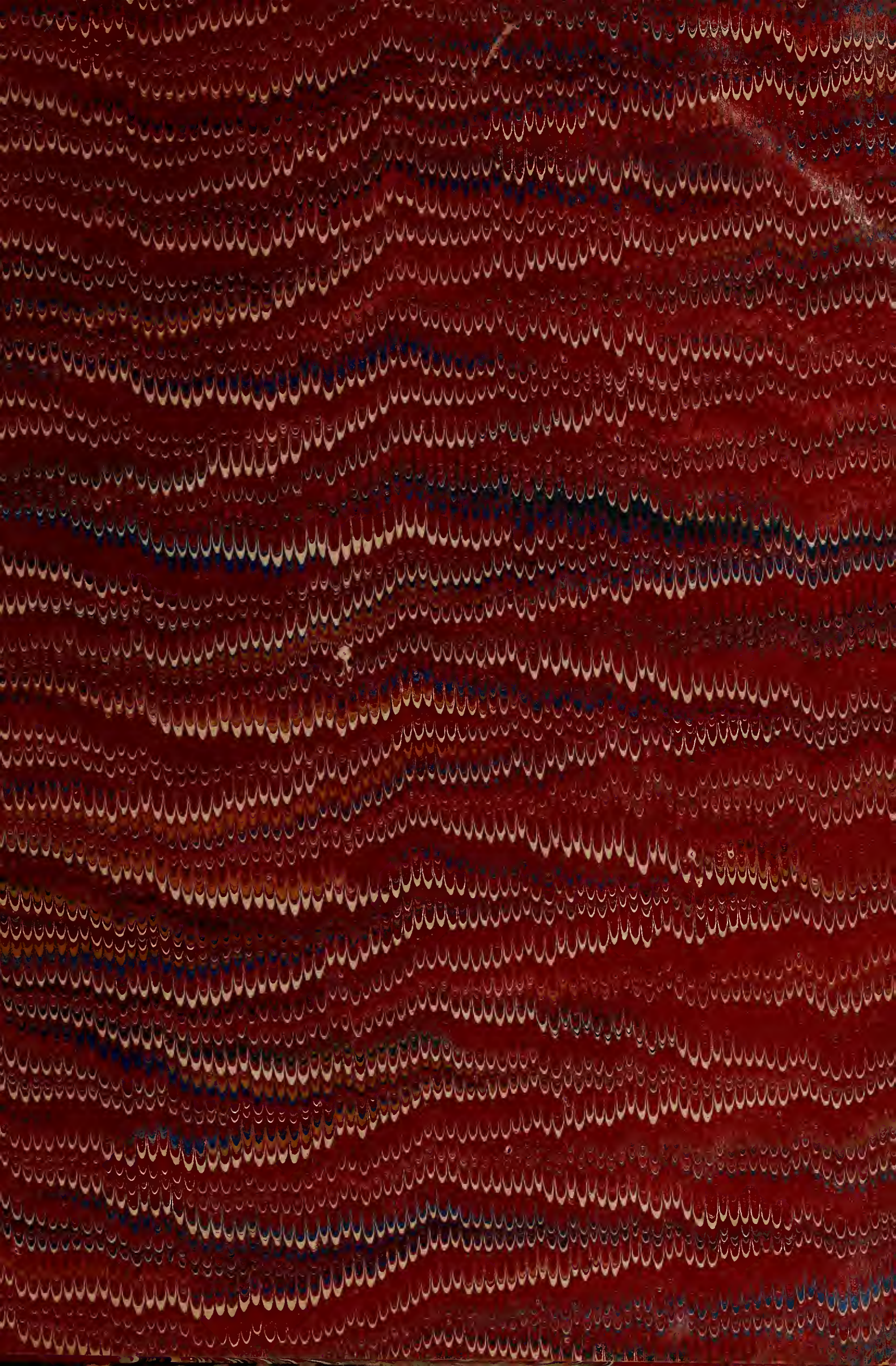
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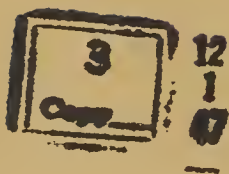
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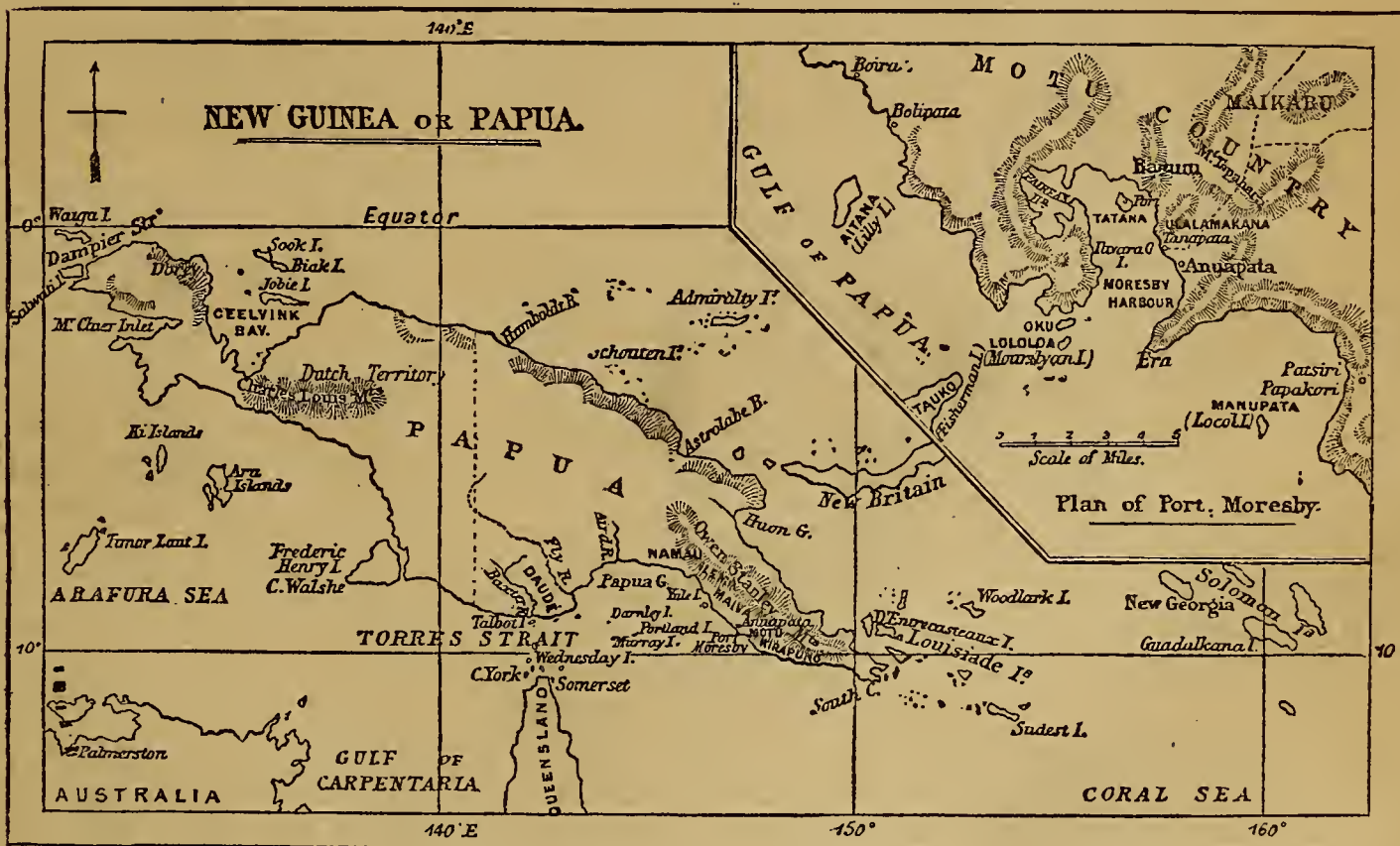
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A FEW MONTHS IN NEW GUINEA.

BY OCTAVIUS C. STONE, F.R.G.S.

DEDICATED TO THE MEMORY OF A BELOVED FATHER AND MOTHER, BY THEIR SON.



PREFACE.

BEFORE relating my experiences in New Guinea, it may not be out of place to state in a few words its geographical position, and to give the names of some of its explorers. New Guinea, or Papua, is separated from Cape York, the most north-easterly point of Australia, by a shallow strait not more than ninety miles wide, discovered by Torres in 1606.

Excepting the continent of Australia, New Guinea has been proved by recent survey to be the largest island in the world, surpassing in size Borneo, which until lately was considered the largest. Its superficial area covers a quarter of

a million square miles, and is therefore larger than France. Its extreme length from north-west to south-east, lying between $130^{\circ} 50'$ and 151° east longitude, is fifteen hundred miles; its greatest width, extending between a latitude twenty miles south of the equator and $10^{\circ} 40'$ south, is four hundred miles, while at one point, at Geelvink Bay, it is only twenty miles wide.

The first discovery of the island is claimed both by the Portuguese and Spaniards; it is, however, on record that the Portuguese commanders Antonio Abreu and Francisco Serram sighted its coast about the year 1511. The next record is that of Don Jorge de Meneses, the Portuguese Governor of Ternate, who was driven by con-

trary winds and currents upon its shores in 1526; and it was not until two years later that the Spanish captain Alvaro de Saavedra, returning to Mexico from the Moluccas, coasted for a month along the north of New Guinea, where he "cast anchor in a great gulf near certain islands," which he called the *Islas del Oro*, supposing them to contain gold. The next account is given by the survivors of an expedition despatched from Peru, under Gonzalvo and Alvarado, in 1537, the former of whom was killed in a mutiny, while the latter was obliged to abandon his ship owing to its crazy condition, and landed with some sailors at Papua; and those who did not die of hunger were rescued by the illustrious An-

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tonio Galvano, and eventually arrived at the Moluccas. They said, "The people on all these lands are black, and have their hair frizzled, whom the people of the Maluco do call Papuas."

The term Papua is a corruption of the Malay words *pua-pua*, signifying curly or woolly, and was first applied to the inhabitants on account of their hair. In 1546, the Spanish navigator Ynigo Ortiz de Retes sailed in the ship *San Juan* along the northern coast of the island, and believing it to be a newly discovered land he called it *Nueva Guinea*, from the supposed resemblance of its inhabitants to those on the African Guinea coast. In 1616 Schouten sighted the north-east coast of New Guinea; and in 1643 the famous Portuguese navigator Tasman visited the north coast. The Dutch traveller Keyts mentions New Guinea in the account of his expedition in 1678; but Luis Vaes de Torres, the Spanish navigator, had sailed between New Guinea and Australia seventy-two years before; and when, in 1762, Manila was taken by the British, and Dalrymple found Torres's letter to the King of Spain describing his discoveries, the straits were named after him. In the year 1700 our countryman Dampier saw the coast, and sailed between it and New Britain, and the straits were named after him. It was not, however, till the year 1770 that Captain Cook first surveyed the passage through Torres Straits, in his ship the *Endeavor*, but on account of the hostility of the natives he did not land. In 1774, Thomas Forrest, an English officer, was sent by the East India Company to see if spices were to be found in the possessions claimed by the Dutch, which territory includes that part of the island lying west of 141° east longitude, and he landed at Dorey, to the north-west of New Guinea, in the *Tartar Galley*. About the year 1824 the French naturalist Lesson visited New Guinea in the ship *Coquille*, but only remained a few days; and in 1826 Lieutenant Kolff, a Dutch surveyor, took some observations along the south-west coast; and two years later the Netherlands Government built a fort, called Du Bus, in Triton's Bay, which was shortly afterward abandoned on account of the climate. In 1844, Captain Blackwood, in H.M.S. *Fly*, made a survey in the neighborhood of the Papuan Gulf, terminating east of Aird's River, the details of which are narrated in an interesting manner by Mr. Jukes, in "The Voyage of the *Fly*;" and in 1846, Lieutenant Yule, in H.M. schooner *Bramble*, continued the survey to a point whence he saw the lofty mountain which now bears his name. Two years later, Captain Owen Stanley, in H.M.S. *Rattlesnake*, accompanied by the *Bramble*, commenced a four months' survey of the south-east peninsula, and the great Mount Owen Stanley range, the highest point of which is estimated at 13,205 feet above the sea, was named after him. In 1858 some slight knowledge regarding the south-west and north coasts, up to 141° east longitude, was obtained through the Scientific Commission sent by the Netherlands Government; and as recently as 1873 Captain Moresby, in H.M.S. *Basilisk*, carried out a running survey of about two hundred and seventy-five miles of the south-east coast.

One of the most eminent explorers of our own day, and the first white man who has ever resided in New Guinea, is Alfred Russel Wallace, who in 1858 spent about three months at Dorey, where he found several new species of birds-of-paradise, and his work, entitled "The Malay Archipelago," gives some interesting information respecting that part of the country and the adjoining East Indian islands. Until my own visit, no English explorer except Wallace had resided in that *terra incognita*, although it had been discovered more than three hundred and fifty years before. But Scotland has been worthily represented by my friend Samuel Macfarlane, the missionary, who may be admired for his daring spirit as much as beloved for his goodness, and in whose company my first journey to New Guinea was made; and also by Mr. Lawes. Among the few foreigners who have resided in that part of the world are Miklukho Maklay, from Russia, who in 1871 landed at Astrolabe Bay; the Italian naturalists Signor d'Alberty

and Beccari, who in 1872 explored the neighborhood of Dorey; Dr. A. B. Meyer, from Germany, who explored the whole coast of Geelvink Bay and its islands in 1873; and, lastly, Dr. James, from America, who, with a Swede named Karl Thorgren, was murdered by the natives on the main-land opposite Yule Island, in the south-east of New Guinea, so late as 1876, about a month after I left.

With so many competitors in the field, it seems strange that, until the last few years, no one should have succeeded in journeying more than fifteen miles inland; and though this distance has now been much exceeded, a vast area still remains unexplored.

So little being known of the country, I have been induced to publish a short account of the few months I spent in New Guinea; and for its many defects, of which I feel conscious, I must claim the indulgence of my readers.

CHAPTER I.

VOYAGE UP THE MAIKASA, OR BAXTER RIVER.

I HAD spent several pleasant weeks at the house of my friend Mr. Macfarlane, head of the New Guinea Mission, whose residence was at Somerset, near Cape York, to the north-east of Australia, and had been occupied in hunting in the neighborhood and cruising about Torres Straits, when, hearing of a river, whose mouth was said to be two miles wide, on the opposite shore of New Guinea, only ninety miles across the straits, we determined to sail to the unknown region, and explore the river.

We accordingly left Somerset in the little steamer *Ellengowan*, on the 25th of August, 1875, accompanied by four South Sea Islanders in the employ of the London Missionary Society, and arrived off the island of Boigu on the 30th. A great part of the channel had not been surveyed, and many hidden reefs and sand-banks not marked on our chart caused the navigation to be one of considerable risk and difficulty, though when it becomes better known a suitable passage for large vessels will probably be found. Several times we were near running upon a reef, but, owing to Captain Runcie's able management and vigilance, we succeeded in avoiding such a catastrophe. A low line of mangrove-trees, rising apparently from the sea, marked the coast of New Guinea, or *Koi-lago*, the Big Land, as it is called by the islanders (the name *Daudé* is also given to it by some of the aborigines). Nothing could look less inviting than the flat plain before us, with what appeared to be great swamps extending we knew not how far inland; nevertheless, our anxiety to explore these unknown regions made us impatient of delay.

The afternoon of our arrival at Boigu, a small island, about nine miles in length, off the coast of New Guinea, we sailed in a little boat to the mouth of the newly discovered river, a mile wide, called the Maikasa, or Pearl River. A couple of canoes were staked to the bank, and we observed smoke arising from among the trees; so we landed, and found about a dozen men, natives of Boigu, who presented us with some cocoa-nuts and yams. They had caught a *dugong*, a large fish, weighing several hundred-weight, and were cooking it in pieces, over a wood fire made upon a low heap of stones. They were acquainted with one of the native teachers, and seemed glad to see us, offering us a hearty welcome in their rough kind of way. They were perfectly naked, but many of them wore a pearl-shell breast ornament, or *mairi*, suspended by a red string from their necks; their ears were pierced all round, and artificially elongated, strings bearing small tassels being passed through the holes. Several wore wigs, like mops, having shaved their heads by means of pieces of shell or glass.

When the *dugong* was cooked, the men clustered around, scraping it with oyster-shells or with their fingers, and afterward sucking them with evident relish. They offered us a portion, which we did not disdain to accept, and found very good, tasting something like veal. They told us of an immense bird, found up the river,

which "can take a *dugong* in its claws, and turn over turtle;" but, knowing how greatly exaggerated and little reliable the statements of the natives usually are, we felt very incredulous.

The macapodium, or wild fowl, must be abundant, as we saw several of the enormous nests made by this bird, one of which measured eight feet high, and fifty feet round the base! They are composed of soil and decayed vegetation, which, when it becomes heated by the sun, hatches the eggs, laid a few feet below the top of the nest. Ducks are plentiful in the swampy portions of Boigu, and are so tame as to be easily shot, and some of these formed our evening repast. Pigeons, doves, paroquets, white cranes, and the most magnificent butterflies, made nature gay with song and color. Land shells like snail shells, as well as snakes and lizards, abound.

The most beautiful flower I noticed was the hibiscus, excepting perhaps the crimson clusters of bloom on a flowering tree, a species of *erethrina*. Sharks are plentiful in the waters, and *dugongs* are speared almost daily by the natives, who erect bamboo perches over the river, seated on which, they await a favorable opportunity for launching forth their barbed spears into the finny monster.

On the 1st of September all preparations were concluded for the ascent of the river, and at low-water we raised anchor, but soon ran upon one of the numerous sand-banks lying between Boigu and New Guinea, and there remained until the rising tide floated us off again. We had no further mishap, and entered the Maikasa at 2.30 in the afternoon. It was a moment of intense excitement when we entered this unknown land and first sailed upon the noble river, whose banks had never re-echoed to the sound of a steam-engine, and whose waters had never before been ruffled by a revolving screw.

We saw smoke rising in large volumes a couple of miles off, but no other signs of life were visible. On either side was an interminable forest of mangrove-trees, growing on the flat swampy land; so level that the highest ground was only a few feet above high-water.

Early next morning we sent the men on shore to cut wood. They discovered fresh footprints, and smoke was again visible afar off, but no village, nor even hut, and not a single native did we see. The stillness of the scene was almost painful, and was only broken by the occasional scream of a passing bird, except for which (and we scarcely saw a dozen during the day) all was silent as the grave. Even the countenance of an alligator would have been welcome, but not one appeared to relieve the death-like solitude. At last, when we had gone about thirty miles, we beheld, almost to our astonishment, a native leisurely paddling a canoe; but he stopped, as though thunderstruck, on seeing "the great machine" advancing toward him! We gave orders to steam full speed, so as to catch him, if possible, before he could gain the bank; but the faster we steamed, the faster he paddled, and when he found it impossible to reach the opposite bank in time, he turned back in evident terror, staked his canoe to a bamboo, and ran off inland.

The *Daudé* Papuans, as the natives of this part of New Guinea are called, are said to be cannibals; they lead a roving life, hunting with the bow and arrow, and fishing with nets and spears. The country is very thinly inhabited; the malaria during the rainy season, and the heavy night-dews during the dry, create a most unhealthy atmosphere. Indeed, I am led to understand that one single night spent on shore here at some seasons is quite sufficient to give a European the fever. Notwithstanding this, the climate, while travelling by boat, was agreeable enough. The temperature seldom exceeded 87° in the shade at noon, or 70° earlier or later in the day; but this was in September, their spring-time of year.

When we had steamed nearly fifty miles up the river, we found it separated into two streams, and as we were sailing round into one, the current was so strong that one of our small boats came in contact with the screw-propeller and sunk. It was raised with considerable difficulty, but was rendered useless for the remainder of the voyage. Fortunately we still had another life-boat with us,

our journey must have come to an untimely end. The next morning, while the men went in search of fuel, we landed to explore the neighborhood. I sowed some water-melon seeds near the river, and we walked a mile inland, until we came to tracts of swampy land. We noticed traces of wild-boar, and evidence of the recent presence of natives was afforded by the charred trunks of trees, which must have been burnt not long before; vegetation was prolific, but a few birds, butterflies, and dragon-flies were the only living things we saw.

Shortly before noon we were again winding up the river, and that it was a river, and not merely a salt-water creek, we were convinced by the indications of the salinometer, which sunk lower and lower as we proceeded. At length we passed a hut, but it was untenanted. Beautiful palm-fans rose here and there from the water's edge to a height of thirty feet, giving a very tropical appearance to the landscape.

We succeeded in making our way with comparative ease as far as about sixty-four miles from the mouth of the river; but here we were compelled to cast anchor at a place where the waters again divide into two channels, each being too narrow to admit of our steamer turning in it. After sounding both streams, we went in a small boat a short distance up the deepest, the most easterly of the two, which averaged two and a half fathoms deep at low-water. On one of the banks we found good drinking water, with which we were glad to fill our casks. Near the spot where we cast anchor, which we named Wood Bay, was a bark hut, with the remains of a fire and the bones of a kangaroo, off which the natives had probably dined. These shelters afford homes to people roving from place to place, and are used as temporary dwellings while they stay to hunt game.

As we continued our course, the water became sufficiently fresh to drink, the mangrove-tree almost disappeared, and the beautiful *Nipa* palm became more abundant, and formed graceful festoons overhead as we rowed along beneath its overhanging leaves. On the swampy land around grow tall forest trees, one hundred feet high, with reeds and scrub underneath. Noticing some trees that had recently been fired, we landed, and wending our way through tall grass, nearly as high as ourselves, came to a well-constructed fence, made of branches of trees, enclosing about six acres of land. On this ground, part of which was dug over, were planted yams, sugar-cane, and, what I least of all expected to have seen, tobacco. It was the first and last piece of cultivated land we came across during our whole journey. We hung up a looking-glass and knife to astonish and delight the natives on their return.

About two miles beyond, a stream of fresh-water falls over the bank into the river, which dwindles here to a width of only sixty feet, and we named this place Cascade Point.

On returning to the steamer, I arranged with Mr. Macfarlane for the use of the life-boat on the following day. I started at three A.M., accompanied by the engineer of the *Ellengowan* and two of the Polynesian teachers, and the sun had scarcely risen when we arrived at Cascade Point. As we proceeded, birds, which had hitherto been so scarce, became numerous. Cockatoos, parrots, pigeons of various kinds, kingfishers, and many others of the feathered tribe, flew about in every direction, and gave an air of life to the locality, an agreeable contrast to the deserted character of the district we had passed nearer the coast. We shot some lavender-colored pigeons, twice the ordinary size. These were very numerous, and we greeted the first appearance of the beautiful bird-of-paradise with feelings of great delight.

The river zigzagged more and more, and became still narrower, until, at about ninety miles from its mouth, our boat was effectually blocked by trunks of trees, snags, branches, and other impediments, and it was impossible to proceed an inch farther. We returned to the nearest suitable landing-place, and spent the remainder of the day in shooting birds-of-paradise, the *Paradisæa raggiana*, which were very numerous and in full

plumage. Unacquainted with the sound of a gun, they knew no fear, and constantly settled on some tall tree near me, but owing to the dense upper foliage it was difficult to detect them; they however only remain a few moments on one tree, and then fly off to another. Their whereabouts may be known by their peculiar whistle, resembling that of a man to his dog.

As we were walking in the high grass, we shot a boa-constrictor eighteen feet long. A large protuberance in its body, nearly half a yard across, we found to be caused by a kangaroo, swallowed whole, in a highly decomposed state, and the stench was horrible.

Surrounded as we were by forest, it was impossible to see any great distance, but as far as we saw the whole country appeared a level plain. I buried a Bass's pale-ale bottle, enclosing a paper giving the date of our visit, before we set out on our return.

As we rode back, night stole across our path; but the darkness was relieved by thousands of fire-flies, glittering with their tiny light, flying from shrub to shrub, or congregated upon certain trees which appeared to have a peculiar attraction for them. Such was their brightness that, at first, we were actually deluded into the belief that we saw a fire at a distant bend of the river, but on coming nearer we found it was only one of these trees lit up with these little living fires. Reflected in the dark waters beneath, it formed a natural illumination of great beauty.

After a long day we reached the steamer in safety, and were greeted with a tune on a barrel-organ which we had brought, thinking it might please some of the natives; but only the one man, who ran away before we could reach him, had we seen during the whole of our journey. The next evening we anchored off the mouth of the river, to which we now gave a new name, calling it the *Baxter*, in honor of Miss Baxter of Dundee, the kind donor of our little vessel, the *Ellengowan*, by means of which we had been enabled to penetrate farther into the interior of that great unknown land than any previous expedition.

CHAPTER II.

SECOND EXPEDITION TO NEW GUINEA.—IN PERIL.—VISIT RORO.

ON returning to Australia from the Maikasa, or Baxter River, September 12th, 1875, we found the *Chevert* Expedition, which had left Sydney in May, with the object of exploring the Fly River, already returned to Somerset, having been unable to reach even the mouth of the river. This was owing, in a great measure, to their having attempted to make the expedition during the south-east monsoon, which blows remorselessly against the western coast of the Papuan Gulf, and makes it difficult for a sailing vessel either to avoid the reefs and shallows that abound near the shores, or suddenly to retrace her course. Before going on our voyage of discovery up the Baxter, I had ordered a firm at Brisbane to send me a quantity of goods and some black natives, called Kanakas, the assistance of whom I considered essential to insure the success of my proposed travels in the peninsula of New Guinea. I had particularly requested that they should be forwarded to Somerset by a certain steamer, as my only chance of reaching that country was by the missionary vessel which went there at distant intervals. A letter had been received in my absence from the firm (which I afterward learned was laboring at the time under pecuniary difficulties), saying that they regretted not having all the goods precisely as ordered, and therefore awaited my reply, although in a previous letter they had promised they should be forwarded without fail by the time named. There being no telegraphic connection with Somerset, and only a monthly mail either north or south, it was evidently too late to reply and to receive the goods from Brisbane before the departure of the *Ellengowan*. There certainly did exist a little shanty in Somerset that went by the name of a "store," where a few things were procurable at a high rate; but I was literally in want of everything, from fire-arms and ammunition down to food, pins, and needles.

As the *Chevert* was about to return to Sydney, I fully hoped to be able to purchase at least the most necessary articles from her; but in this I was destined to disappointment, notwithstanding she was laden with the very things that I most required.

For the moment I imagined my fondest hopes crushed, and had it not been for the disinterested kindness of my friend the Rev. S. Macfarlane, the missionary at Somerset with whom I was staying, who came to the rescue and fitted me out as well as he could, both from his own private stores and those of the mission, I must certainly have given up my long-anticipated visit to the south-east peninsula of New Guinea. Intelligence now reached us of the break-down of the steamship *Bowen*, from Sydney, by which my men and some more goods for the mission station were expected; but when, at the expiration of a fortnight, we saw a steamer coming from the south, we hoped it was the looked-for vessel, and great was our delight. However, it proved not to be the *Bowen*, but an auxiliary steamer carrying only mails. Another fortnight's delay was now necessary, for it was not till the 19th of October that the long-expected and anxiously awaited vessel hove in sight. The missionary supplies were on board, and a letter was handed me stating that no men could be procured willing to act as my baggage-carriers in New Guinea. No men can possibly be obtained in Somerset, as the pearl-shell fishers are in continual want of hands, and snatch up any odd man almost before he quits another's service. One only hope remained, and that was to obtain some natives from Erub (Darnley Island) on our way; but this also was destined to be unfulfilled. I had already engaged, to assist me, the services of a Mr. Lawrence Hargrave, and of Messrs. Petterd and Broadbent, the latter two being well-known taxidermists and collectors.

Both Hargrave and Petterd had been formerly members of the *Chevert* Expedition, and were glad to have an opportunity of revisiting a land they had scarcely seen; while Broadbent, who happened to be making collections of natural history in Somerset, was no less pleased to accompany me to a country that was then creating so universal an interest.

The members of my expedition, therefore, only numbered three besides myself; and I could not help feeling that with this small number, and without proper carrying power, it would be useless to expect to penetrate far into the interior of a country where the natives were generally believed to be ferocious and unwilling to render any assistance. But the arrival of the *Bowen*, and the loading immediately afterward of the missionary steamer, gave little time for reflection, and having been kindly promised a passage with my party, and having purchased the most requisite articles for at least three months' residence in New Guinea, I decided upon going. That night the little *Ellengowan* was six inches lower in the water, and on the following day all was again bustle and commotion, as the rowing-boat, time after time, put off from the shore to the steamer, filled with bags of flour, rice, preserved meats, chests of clothes, and other sundries, so that at sunset all was in readiness for her departure. These necessities of life are distributed among the few natives of Polynesia who have been located by the London Missionary Society as teachers at various places on the coast of New Guinea and adjoining islands. The evening was pleasantly spent by myself and party (Captain Runcie of the *Ellengowan* also being present) at the reverend missionary's house, where we took supper, after having first offered up prayers for our future safety and welfare. At a somewhat late hour we bade farewell, and found ourselves on board the steamer, where we slept that night, so as to be ready for an early start in the morning.

The sun rose brightly in a clear sky on the morning of October 21st, and the gentle breeze scarcely disturbed the mirror-like surface of the sea as we raised anchor and steamed out of Albany Pass. We anchored the first night at Erupa (Village Island), and the second at Erub (Darnley Island).

After leaving Erub, we soon passed the Great

Barrier Reef which divides Torres Straits and the Inner Route from the Coral Seas.

Since morning, clouds had been gathering, and the breeze had freshened considerably. The distance from Erub to Roro* (Yule Island) is one hundred and eighty miles in an easterly direction, and should have been accomplished in thirty-six hours, even by our slow little vessel; but the wind increased to such an extent, and the current became so strong, that at the close of the second day after leaving Erub she had drifted some forty miles to leeward.

Her course was altered, and the whole of that night we hammered away due in the face of a heavy sea, and it was not until morning that Roro was sighted, twenty miles off. We then confidently expected to reach it by evening; the wind increased so much, however, that we scarcely made any progress, and at nightfall were still some miles distant, and were only five from the main-land, where the rocks rise precipitously from the water. Every hour of the day had been anxiously counted, but from nine o'clock to noon not an inch of progress was perceptible. As we could not anchor to the leeward of Roro, fearing to be washed by the force of the wind and current against the shore, we passed another anxious and fearful night in the utmost suspense. A violent gale now blew, and we were constantly expecting one of the huge waves that rocked our little vessel like a cockle-shell upon the briny deep to swamp her with one fell swoop. Providence, however, guided her safely over the troubled waters, and after a sleepless night Roro was again sighted, ten miles to the north, and by mid-day we entered Hall Sound, which divides the island from the main-land of New Guinea, two miles distant. During the three days and a half, and three nights, we had been constantly steaming since leaving Erub, neither Captain Runcie nor the engineer had obtained any sleep; and the latter had been acting as stoker, one of our colored stokers being too ill to attend. It may easily be imagined that all were completely knocked up, and most thankful for such a timely deliverance from so perilous a voyage.

The *Ellengowan* is a good little sea-going vessel, but her engine is one of only sixteen-horse power, and both that and her sailing powers might be enlarged with advantage. The sudden squalls which spring up in these seas, especially during the south-east monsoons from April to November, render a voyage in a small vessel across the Gulf of Papua one not wholly free from danger, and none should attempt it at that season of the year but those who are prepared for a sudden change from calm to tempest.

Signor d'Albertis, the Italian naturalist, who had been six months on the island, shortly came on board. In company with Beccari he had previously spent some time in the neighborhood of Mount Arfak, to the north-east of New Guinea, and he added considerably to our knowledge respecting its fauna and avifauna. He appears to be a man of about forty years of age, slightly above the average height, with a commanding person. His beard, hair, and mustaches are long and jet-black, his eyes black and penetrating, and his complexion sallow and sunburnt. He wore a loose blue cotton jacket and trousers, without doubt a very suitable dress for the place. Tight-fitting clothes are unhealthy and unbearable in so hot a climate, keeping one in a perpetual state of perspiration and uneasiness. I think, however, that white or blue serge is the best material for hard travelling in tropical countries, and I should always recommend one or the other.

From the sea Roro presents a beautiful appearance, reminding one of an English park, with its patches of trees and verdant slopes. It is about five miles long by two wide, and is crossed by two rows of hills with a fertile valley between. A large portion of the country is covered with coarse green grass, which at this season of the year is from four to five feet in height; and the remaining portion (about one-third) with forest and scrub.† The latter is generally found toward

the summits of the hills and around the coast, while forest-trees adorn the whole island. The land rises to an elevation of about four hundred feet above the sea on the south-eastern side, and slopes gradually to the opposite shore, where it becomes more wooded. It contains four principal villages, with a probable total population of five hundred, the inhabitants of which own small patches of cultivated land, producing bananas, yams, taros, and sugar-cane. Wild yams are also found, but they have scarcely any taste, and are stringy, like pulp.

The formation is sedimentary, composed chiefly of a coarse and compact conglomerate of corals and recent shells, but much of the soil on the lower levels is a rich alluvium. Good freshwater streams intersect the island in various directions, and nothing is required but an enlightened people to make of it a garden of plenty, and a charming residence. Cocoa-nuts are obtained from the main-land, but are imported so frugally that I found it almost an impossibility to obtain one. Indeed, such exorbitant prices are asked that the natives would not offer me one at first for anything of less value than a hatchet; and any description of their vegetable produce is difficult to obtain, even bananas, though they grow in abundance.

I found red beads, red serge, and fish-hooks the most useful articles of barter at Roro, whereas tobacco was quite at a discount, although much prized by the Ilemma tribe to the north, and by the Motu tribe to the south. This struck me as an astonishing fact; but as civilization spreads so sure will the use of the fragrant weed among the Maiva tribe. Pearl-shells are the most valuable things in their eyes, and a single one will sometimes purchase a canoe.

The men dig the ground with great rapidity, in gangs of a dozen or more together, by means of poles eight feet long, pointed at one end, and then fence it neatly round to prevent the encroachment of wild-boars. These fences are six feet high, composed of sticks placed upright in the earth five or six inches apart, tied near the top to creepers, running parallel with the ground. The enclosures vary in size from five to thirty acres, those natives who have constructed and planted them sharing the produce. On our first arrival, some of the natives, both men and women, came off in canoes in hopes of selling their body ornaments, which are neither numerous nor handsome, though on great occasions they decorate their bodies all over, and come out great swells in their way. None are entirely naked, though they wear nothing more than a strip of bark or a fringe. The men have belts three inches wide, so tightly fastened round the waist as to bulge the flesh out above and below, the skin underneath being bruised by constant pressure and friction. By so doing the waist is contracted into the least possible compass, like that of European ladies in the nineteenth century. They wear as ornaments netted armlets, bracelets, anklets, various sorts of necklaces, the pearl-shell, or *mairi*, over the chest (common more or less throughout the whole of New Guinea and adjoining islands), nose and ear ornaments, and a frizzing-pin with two or more prongs like a fork stuck in the hair. This latter answers the twofold purpose of hair-frizzer and head-scratcher. The hair grows long and frizzy, projecting from six to nine inches all round the head; and almost all, especially the younger and vainer among them, part it across the cranium from ear to ear, bringing it over the forehead in front, and doing it up into a sort of chignon behind. The pure Papuan is of a different type, having short, crisp, and invariably curly hair, and complexion approaching black; whereas that of the Roro natives is of several intermediate shades, from that of the dark Papuan to that of the light Malay. This difference may be attributed to inter-marriages that have from time to time taken place among the Papuan aborigines and the Mahori invaders—a collective name adopted by Mr. Ranken for the brown eastern Polynesian race. The features of the lighter among them are the most regular and pleasing, and they seem more intelligent and industrious. Some of the younger men have actually pretty faces—a term

that I have never before applied to the sterner sex—they might easily be mistaken for women, but the manner of dressing their hair and narrowing their body artificially no doubt adds somewhat to their naturally effeminate features. Physically speaking they are muscular and athletic in appearance, but somewhat slightly built, and low of stature. Food other than vegetable is very scarce on the island, but both kangaroos and wild pigs are plentiful on the main-land, to which hunting parties frequently resort. The chief village of Roro is situated on the southern coast, the houses of which are scattered irregularly at several hundred yards' distance from each other. I measured one that appeared to be of the average size, and found it eighteen feet long, twelve feet wide, and thirteen feet from the ground to the top of the double sloping roof. The floor was raised three feet above the ground, constructed of the stalks of the sago palm laid side by side, while the framework was made of sticks and poles with palm-leaves laid obliquely on the roof and sides in double layers, resembling lattice-work. Generally both ends are left open—in all cases one; sometimes they are partitioned off across the centre, leaving space on either side for separate families to live in. As a rule they are fairly comfortable and clean-looking, contrasting favorably with the wretched abodes of the Machik, Mabuagi, Dauan, Boign, and other natives of the Torres Straits Islands. Hall Sound is a splendid sheet of water, separating the island from the main-land, where a fleet might ride in perfect security, and is entered by a narrow and deep channel on the south, whereas an extensive reef closes it in on the north. The neighboring coast-line is low and overgrown with mangroves, which cause it to be less healthy than Roro. The most striking feature in the panorama is that of Mount Yule, called by the natives Kobio, which rises cone-shaped at a distance of some thirty miles inland to a height estimated at 10,046 feet. It towers like a forbidding giant high above the numerous ranges of mountains and hills that divide it from the coast, which become more rugged and increase in height toward the centre of the peninsula. So clear is the atmosphere that its distance is difficult to realize, for not only are the tremendous gorges and chasms distinctly seen upon its sides, but also the shadows which they cast. The Nikura River (named by Captain Moresby the Ethel) flows into the foot of Hall Sound; but I was informed that at low-water the bar was often bare, and the stream narrowed so rapidly that at a few miles from its mouth it was only a few yards wide.

It is called Nikura, from a village of that name situated seven or eight miles from the coast, containing about seventy inhabitants; another village called Epa is situated some twelve miles farther on. There is a small and sluggish creek flowing into the Nikura River, ten miles from its mouth, called by some of the natives Bioto, after a village six miles from the confluence, containing about four hundred inhabitants. This creek has been named by Captain Moresby the Hilder River, but it is most frequently referred to by the natives as the Amama. The village of Naiabui, containing a population of two hundred and fifty, is situated seven miles from Bioto, and Purok is seen on the hills ten miles east of Naiabui. Near to Purok is a market-place, consisting of a large circular space cleared of grass, trees, etc., where natives from distant villages meet at certain seasons to trade. Wild pigs, which abound in certain localities, fish from Cape Suckling, kangaroos from the interior, bananas, jack and bread-fruit from the fertile valleys, are exchanged for such articles as are most rare in the districts of those purchasing. At other times large feasts are given, to which those from a distance are invited. Before these feasts a large hunt is organized for kangaroos, which are caught in nets, the long grass having been previously burnt. For this purpose both men and women turn out, and as many as sixty or a hundred are trapped, which are cut up and roasted over fires made on stones, and then attacked by the hungry visitors. At these festive gatherings each guest appears in the most fas-

* Also called Laval.

† Low or stunted bushes growing beneath the shade of tall forest trees.

inating costume he can conjure into his brain to concoct for the occasion. Cassowary feathers and birds-of-paradise crown the head, paint both black and red bedeck the face and body, and ornaments in great variety are then worn. During the north-west monsoons, when the weather is calm and favorable, the natives from Roro and from the main-land, there called Maiva, may be seen sailing southward in their canoes for purposes of barter, returning again as soon as a fair wind sets in. The sails of their smallest canoes are very primitive, being sometimes composed of a single sago palm-leaf, or else of two sago palm-stalks, supporting between them a sort of cloth made of tappa. The ordinary canoe is manufactured from the trunk of a tree hollowed out, pointed at both ends, and fitted with a single outrigger to steady it. Three of the largest villages in the immediate neighborhood of Hall Sound are those of Mou, Meauri, and Erine, situated within a few minutes' walk of each other. Among the most beautiful birds found in this part of New Guinea are the king bird-of-paradise (*Cincinurus regius*), the *Paradisea raggiana*, paradise oriole (*Sericulus aureus*), superb bird-of-paradise (*Lophorina superba*), crowned pigeon (*Goura coronata*), several large fruit-eating pigeons and pretty little doves, the brilliant-plumaged *Manucodia*, and parrots of different genera. Reptiles are moderately numerous, including rather large snakes, but mammalia are very scarce. Insects are plentiful, but both these and reptiles have a great affinity with those of Australia.

CHAPTER III.

SETTLEMENT OF TENT NEAR ANUAPATA.—A DISTURBANCE.

On the 28th of October we left Roro, and, steaming out of Hall Sound, soon passed Cape Suckling and found ourselves crossing Redscar Bay, into which the Manumanu, meaning "Bird," River flows. An enterprising and adventurous Swede, named Thorngren, whose acquaintance I made in Somerset, was, he informed me, the first white man to find out this river, and had ascended it for a distance of about twelve miles. The village of Manumanu is situated close to its mouth, and the more important village of Kapatsi about four miles up a wide creek, which meets the sea at the same point as the river, thus forming but one opening into it. The river has been since named the Osborne, and the creek Gully Reach by Captain Moresby, and I shall frequently have occasion to refer to the former of these hereafter. Thorngren estimates the average width of the Manumanu where he saw it at two hundred yards, its banks being very thinly populated. He failed to get beyond a certain stream which empties itself into the river, his native guide declining to go farther, giving as his reason (probably an excuse) that, having once killed a native of those parts, he himself was fearful of being murdered in return. Nuro is a small village on the sea-shore a few miles to the west of the river's mouth, but it was only indistinctly seen by us while sailing along. The entire sea-coast for some distance inland is here low and swampy, abounding with mangroves, and necessarily unhealthy. The Skittles are some rocks strikingly situated in the midst of the bay; and just before rounding Redscar Head we passed Pariwari Island, which is in the shape of a horseshoe, with rocky eminences at either end. Redscar Head derived its name from the reddish appearance of the cliffs which compose it; and Caution Bay, which we next entered, was so called on account of the many hidden reefs that lie concealed, necessitating greater caution in its navigation. A barrier reef here commences, and extends more or less uninterruptedly along the entire length of the peninsula at a distance varying from about one to four miles from the coast. The water between this reef and the shore varies considerably in depth, but, excepting in a few places, is deep enough for all ordinary vessels. It is, however, just these few places which make the navigation rather risky at present, and this must be so until a trigonometrical survey is made.

We anchored the same evening off the little

island of Aitana (Lily Island), and soon after saw half a dozen canoes, carrying eight or ten natives each, pushing off toward us from Boira and Bolipata; villages of nearly equal size situated on the coast of New Guinea, containing together about five hundred people. The men seemed to entertain but little fear of us, for a race soon ensued among them as to which could reach our steamer first. One or two women only were among them, and they were all permitted to come on deck, and seemed anxious to exchange whatever they possessed for tobacco, red beads, and turkey-red cloth. A small quantity of any of these was sufficient to procure articles that had evidently taken some days or weeks to make. Body ornaments, ladies' dresses, finely netted bags, crawfish, cocoa-nuts, a few small pieces of turtle-shell, and one or two birds-of-paradise skins (*Paradisea raggiana*), were eagerly offered for sale, and several purchases were made by us. With so many natives on board, and knowing what thieves they were, it was necessary for each of us to keep on the *qui vive*. Although practically naked, they are such adepts in the profession, and thieve with so much dexterity, that they once all but succeeded in running off with the iron door of the cooking range! They retired at dusk, and the following morning, before it was yet light, we were awakened by a shout of "Canoes coming!" The first contained the native Polynesian teacher, Perri, and his wife from Boira, with their little child, and then followed nine other canoes, containing about one hundred natives from the two villages. We now learned that since the *Ellengowan's* last visit, four months since, no less than four teachers and one of their wives had died from fever and ague, and many natives of measles, which had unfortunately been introduced into the country through the missionaries. Our arrival, therefore, in the missionary vessel at Annapata (Port Moresby) on the 29th of October was not greeted by the natives with any feeling of pleasure. Scarcely had we anchored when Mr. Lawes, the resident missionary—the only white man excepting D'Albertis then in New Guinea—came on board. The life of a missionary is at all times arduous, deprived as it is of home in the true sense of the word, and of its many comforts. In all the South Sea Islands where missionary stations are established, passing vessels bringing letters from dear friends and the latest news of their distant fatherland are by no means rare, and relieve the monotony that would otherwise accrue. Here, however, deprived of all communication with the civilized world for four months at a time, the life of a worker for Christ is especially hard, and deserving of our admiration. In consequence of the unavoidable delay of the *Ellengowan*, the missionary, his wife, and the colored teachers had been for several weeks without proper provisions. Happily, kangaroo at that season of the year is very plentiful, so by shooting, and by selling some of their personal effects for bananas and yams, they had managed to keep body and soul together. It may be imagined how heartily they welcomed our arrival in the harbor.

The distance from Roro to Annapata is only sixty miles, but it is sufficient to greatly change the character of the country. As you travel south, the dense forests and jungle give way to more scant vegetation, the low hills along the coast become more broken and barren, until at Annapata you come to open forest-land interspersed with hills averaging four hundred feet high.

Moresby Harbor runs for about three miles in an almost northerly direction, and then, turning to the west, forms a second inland harbor of rather smaller dimensions. To the left (on entering) the hills presented a dried-up, brown, and unkindly barren aspect; to the right they are somewhat higher and more picturesque, though scarcely more fertile. The formation of the hills is limestone, the ground is strewn with pieces of rock, and has only a slight covering of the poorest soil. With the exception of rather extensive banana plantations and a few cocoa-nut-trees (scarcely as many as there are houses in the village), no signs of cultivation are to be

found; indeed, the soil possesses insufficient nutriment for successful cultivation. The night of our arrival, my party was kindly invited to sleep at Mr. Lawes's, the missionary's, house. A couple of mattresses were placed upon the floor to sleep on, but both Hargrave and Broadbent declared, when morning came, that they had passed a sleepless night, as they had not been accustomed to such luxuries for so long a time. Next night they slept better upon the hard ground beneath my tent. Such were two out of the three who accompanied me. By a curious coincidence both had been wrecked in 1872, when that unfortunate vessel the *Maria*, bound from Sydney to the very place we had just reached, stranded upon Bramble Reef, near Cardwell, and fifteen of their number were drowned, and fifteen murdered by the natives.

Saturday, October 30th, was spent in erecting the tent, which measured twenty feet in length, by fourteen feet high and twelve feet wide—large enough to afford ample accommodation for four, together with our baggage and provisions. A small union-jack waved at each end of the roof, and another was hoisted in front upon the tallest pole I could procure, bearing upon it, in letters of white, that strange device "Excelsior." The site chosen for its erection was upon a hill about fifty feet above the beach. The front of my tent faced the entrance to the harbor; situated to its left, on the beach below, was Annapata, and to its right Tanapata, from which a short ridge of sand, bare at low-water, leads to the village of Ilivara, situated on a small island opposite. Thus there were three villages almost within a stone's-throw of my camp, containing a total population of about seven hundred. It was now time to bring ashore my camp paraphernalia, and as the little rowing-boat arrived from the *Ellengowan*, laden with our goods, they were carried up by natives picked from among a great number, congregated for purposes of curiosity, and for procuring by theft whatever it was possible to do unnoticed.

I engaged four men, but when I was about to pay them in tobacco for their services, no less than fifteen different persons, including some of the chiefs, made application on pretence of having assisted!

After satisfying their demands, not however without some remonstrances on my part, I hoped to enjoy a little quiet within my new home, but was besieged by a host of new applicants calling out *Kuku, kuku* at the top of their voices. This I soon learned meant "tobacco;" indeed, the first words I heard on landing were *kuku, kuku lasi*, repeated several times in an interrogatory voice, meaning "Tobacco, tobacco, no?" or, "Have you no tobacco?" Since then, those words rang constantly in my ears, coupled with the word *akev*, meaning "beads." That evening, while we were absent, a great hubbub of voices was heard in the direction of our tent, and on looking round we observed a quantity of natives surrounding it armed with spears, stone clubs, wooden swords, and one or two with bows and arrows. Their number must have been from sixty to eighty, and was every minute increasing; and as we made our way back they were talking loud and fast, their gesticulations appearing rather formidable, and their attitude anything but pleasing. Not knowing what was going to follow, we unpacked our cartridges and prepared our arms for any emergency. I found that the principal cause of all this excitement was the conduct of the Polynesian teacher who had been left in charge of the tent, with orders to allow no one inside, and had imprudently pointed a gun on the intruders, on pretence of frightening them away. In addition to this, they were not at all pleased at my persisting to remain in their country contrary to their wish, which was expressed through the chiefs. We afterward learned that most of the unfriendly natives were from the village of Ilivara.

I was not sorry to find that they all entertain a wholesome fear of being away from their homes after dark, so that they dispersed to their several villages as the twinkling stars commenced to give forth their faint but welcome light. We now burnt a couple of blue lights, and let off some

CHAPTER IV.

CLIMATE OF THE COUNTRY.—HABITS OF THE MOTU TRIBE.

rockets, to give an idea of the white man's power. It had a salutary effect. The three chiefs of Anuapata came early next day to ask if we were cross with the Ilivara people, for they feared their conduct had provoked us, and that by shooting up stars to the sky they might fall and destroy them and their habitations. Others followed their example, repeating the word *main*, meaning "friend," several times; with each of these I shook hands, leading them to understand that so long as they behaved well to us we should not hurt them; we had come as friends to see their country, to learn something of themselves, to see their beautiful birds, and to tell them about the land of the white man. Most of those who came to see us brought body ornaments in hopes of selling them for tobacco, beads, etc.; but the day being Sunday, I established a rule that nothing whatever should be purchased on any Sunday. The natives soon got to understand that it was useless to tempt us to buy every seventh day, as we held it sacred; the result being that we were less molested on the Sabbath than on any other day, which, though not saying much, was yet quite sufficient to cause us thankfulness.

They are the most independent people, and unless they wish it, object to do anything you tell them, even to go out of your own house or tent. The consequence was, that as they could not be reasoned with, and as we had to be very cautious about using force, we were constantly among a jabber of voices that made it difficult to collect one's thoughts for writing. With a wild and totally uncivilized people, it is always best to submit quietly to many inconveniences and practices that you would otherwise resent as insults. In the morning I attended a native service, conducted by Mr. Lawes, the missionary, who had been resident in New Guinea a few months, and could already make himself fairly well understood. His facilities for acquiring a knowledge of their language were increased by a residence of some years in Eastern Polynesia. The service was held beneath a roof, thatched with grass, supported on posts open on each side, and fitted at one end with a low stage and reading-desk. Previously to the present occasion, not more than two or three natives had ever attended; but attracted no doubt more by curiosity than by any religious feeling, no less than three hundred—including men, women, and children—were now present, three-fourths of whom were compelled, from want of space, to remain outside. They appeared to know they ought to be quiet, and some of the eldest seemed to be listening, but the greater part were looking around them and, evidently inattentive, apparently taking no interest in the proceedings. The small boys amused themselves by flinging pebbles at one another, making grimaces, or pulling a stray dog's tail; and sometimes the word *koi-koi*, meaning "lie," would be heard in reference to something the missionary was saying. On Monday there was a formal opening of the "chapel"—the first in New Guinea—at which all my party were present excepting Hargrave, who kept guard over the tent.

This event was celebrated by a short service and a feast to the villagers. The villages were divided into families, twenty-three large bowls of rice, biscuit, and meat being given to the inhabitants of Anuapata, and sixteen to those of Tanapata and Ilivara. The bowls were placed in a long line, and the head of each family having been called by the native teacher, immediately stepped forward, received his present, and placed it upon his wife's shoulder, who marched off with it, followed by a numerous circle, including probably many relatives. Each seemed mightily pleased with his present, and I have little doubt would have liked a new chapel opened every day.

Vegetable food of all sorts is very scarce there; but in the months of October, November, and December animal food can easily be procured, as kangaroos are particularly plentiful; and there are also numbers of pigeons, which can readily be shot with a gun, but the natives can seldom obtain them on account of their inferior weapons.

On the 2d of November we constructed a fence eight feet square in front of the principal entrance to our tent, having a gate which was afterward kept fastened by a cord. The back entrance was laced up, and in this manner we could have the front of the tent open, and hoped to keep the natives at a short distance. The area so formed was protected from the rays of a tropical sun by a pointed canvas roof, and the ground covered with two mats, woven for the purpose from the pandanus-leaf by the wives of some of the teachers who had lately died. I now thought it time further to exhibit the extraordinary powers of the white man, so I blew up a couple of gum-trees with dynamite. At this the men expressed great surprise, not unmingled with fear, but the women seemed less frightened, and, finding themselves unhurt, said it was much better than chopping away at them with stone hatchets. It was some days, however, before the spectators could be induced to approach the shattered trees. We then burnt some spirits of wine, telling them it was *biritani lano*—"English water;" and when we afterward set fire to some paper by the use of a burning-glass, their wonder at our immense power was fairly established. I then fired off my Reilly's Martini rifle, pointing over a mountain some three miles off, as though the ball had passed over it. They were amazed at the supposed power of such an instrument, many saying *Namo, namo*—"good, good"—although one or two to whom I explained it in detail screwed up their features, saying *Tika, tika*—"bad, bad." I next exhibited my revolvers and little deringer, and the rapid action of loading them, but refrained from firing any shots, lest the villagers, whose exclamations at the report of my rifle had not yet ceased, should think we intended mischief. They express surprise in an original manner, by drawing in the lower jaw and clicking their upper teeth with the thumb nail of the right hand. Another method is by compressing their lips so tightly together, that, on drawing air through them, a sound is created, like that vulgarly called "smacking lips." The inhabitants of Anuapata and the neighborhood consist principally of the Motu tribe. The women, besides their ordinary domestic duties, do a good deal of the hard work, such as fetching water, sticks, the produce of their plantations, and making pottery; they also employ their time in netting. Every morning at sunrise, rows of women may be seen carrying earthen-ware pots and net-bags into the country.

An ordinary-sized pitcher holds nearly as much as a common-bucket; this they carry with apparent ease upon their shoulders. The firewood is carried either in bundles, or else in a net-bag hanging on the back, and suspended from the forepart of the head. Usually the women make two journeys daily, one for water, and the other for firewood, bananas, etc.

The men employ their time chiefly in hunting, smoking, begging, and lounging about, and in occasional fishing and trading excursions. They leave their homes shortly after the women, each armed with a couple of wooden spears, and some carrying kangaroo-nets. When thus employed, not a word is spoken by any one of the party until their object is attained, for they say, "If you speak to us we shall catch no game."

Hitherto (and, indeed, from the beginning of May, with the exception of a few days' calm in October) the south-east monsoon had been blowing, and often with considerable force, at times amounting to squalls. A change occurred in the beginning of November, but, though the light north-west monsoon blew at intervals during the months of November and December, it cannot be said actually to set in until January, from which season it continues till the end of April. At the time I am now speaking of (November) the thermometer indicated 110° Fahr. in the shade at mid-day, the early mornings and evenings averaging 76°, and being particularly agreeable. The nights, however, are cool, es-

pecially between the hours of twelve and four, when a light blanket becomes a luxury. Heavy dews fall during night-time, and to these may probably in some measure be attributed the attacks of fever and ague from which my party soon began to suffer, and from which so many Polynesian teachers had died. The natives themselves are not affected in this way; but I noticed many pitted with small-pox, which had carried off men, women, and children with frightful rapidity about ten years previously. It had most likely been introduced by a stray boat belonging to the Torres Straits pearl-shell fishery. At that time Anuapata and Tanapata were nearly double their present size; the former now contains a population of three hundred and fifty in eighty houses, and the latter two hundred and fifty in fifty houses. Other diseases among the natives are comparatively few. Some suffer from eczematous affections, unconfined to any particular part of the body; ulcers and sores are rather numerous; ringworm is not uncommon; and with the Kirapuno tribe (which occupies the country south of the Motu) I frequently noticed a gap or gash in the top lip, whether from disease or a defect from birth I cannot speak with certainty. Measles had been introduced by the missionary vessel on a recent voyage, and from its effects numbers had died. As a rule, they appear to have no treatment for the sick, excepting that they dose them, when possible, with salt-water. They certainly devote more attention to their wants than they otherwise would do, but, being profoundly ignorant of any means of cure, the poor creatures, in most cases, have to take their chance of getting well or becoming worse.

From my camp the neighboring villages, particularly Anuapata, overshadowed by a grove of cocoa-nut-trees, with the bay in front and mountains behind, presented a landscape of savage beauty. We were now in a situation that we all loved—a new world, an unknown land. It was almost like being born again; but it was no dream, the stern reality faced us. The *Ellengowan* had already departed; and we well knew that, whatever happened, there would be no chance of any communication with civilized beings until her return three months hence.

I took an early opportunity of visiting the various villages I have mentioned, one of which I will now describe, as being similar in general appearance to most of those on the sea-coast, and therefore sufficient to give an idea of all. Hargrave and a few natives accompanied me to Anuapata, and, as we approached it, other natives, including some of the chiefs, came out to welcome us, not forgetting to ask for *kuku*, "tobacco." With each of the chiefs we shook hands, and, as they now knew that this was the fashion of our country, they returned our greeting with cordiality; but it is their ordinary custom to rub each other's noses when meeting friends.

The houses are arranged in an irregular line along the beach, and so low down that at high-water the sea flows under them; they are consequently built upon poles let into the shingles, so that the floors are from six to ten feet above the ground. They average twenty-five feet long by fifteen wide, and twelve feet high from the floor to the centre of the pointed roof; the back looks toward the sea, and the front inland. The floors are generally made of wide boards, obtained from the sides of some old canoe; the sides and roof are thatched with long coarse grass; and the whole village resembles a quantity of large dove-cots placed upon poles. A sort of veranda usually projects in a line with the floor on the inland side; on this the natives sit and smoke, make string from fibre, manufacture body ornaments, and otherwise spend much of their time. Wishing to see the interior, we entered several of the cottages; the inmates appeared pleased to show them, and jabbered away meanwhile as fast as they could.

A roughly constructed ladder leads to the veranda, and access to the interior is had by an open door-way. The inside beams support their hunting and war weapons, sundry fishing-nets, net-bags filled with their most highly prized body ornaments, and usually a drum. Some

of the walls were smeared with lamp-black or smoke, and an old man, whom we found the sole occupant of one of the houses, soon led me to understand the reason. Leaning his head on one side, he rested it on the palm of his hand and closed his eyes, remaining for some moments in that position. He then pointed to the blackened beams and went through the same performance. It was not difficult to understand his meaning; his wife, or some other near relation, was evidently dead. In addition to this, his wrinkled old body was blackened, besides having on it a black cane belt and armlets. He was in mourning! Poor fellow! he little knew how much the custom of his country resembled in this respect that of the most civilized nations.

Some smouldering embers lay upon a quantity of old ashes always kept in the centre of the floor, and around them three empty pitchers were placed, so as to form a triangle, on which rested a pot containing the food to be cooked. Before leaving their houses we made a small present of twist tobacco and red beads to the principal inmates; but finding that the more you gave the more they wanted, experience taught us to use a good deal of discrimination in our gifts.

Upon the beach several women were busily engaged in making pottery, an art, I believe, only known to this, the Motu, tribe. It constitutes the principal article of barter between the Motu and other tribes, who come in canoes from considerable distances, both from north and south, giving in exchange agricultural produce and fish. The pitchers are made of red or slate-color clay, placed in wooden troughs, whence it is taken out as required, and worked up by hand over an earthen-ware mould.

The upper and lower halves are made separately, and when in a damp state are patted together with a flat board. They are then baked in an open fire constructed on the beach, when they become a red brick color and are fit for use. Three forms of pottery are made—namely, a *ura*, or cooking-pot; a *hordu*, or water-pitcher; and a *nao*, or bowl. The diameter of these averages fifteen inches, but I saw some in the chiefs' houses measuring twenty-four inches across.

On returning through the village, several men, women, and children were apparently playing immense noiseless bamboo flutes.

In reality, however, they were luxuriating in the native *baubau*, or bamboo pipe. This is usually from two to three feet long and three inches wide, having a small hole in the side, into which a leaf twisted up and filled with tobacco is placed. The tobacco is then lighted, and the bamboo filled with smoke by sucking at the other end, which is quite open. It is then passed round, each person taking a few puffs from the smaller hole, while he stops up the larger with his hand, first removing the leaf, and then replacing it when exhausted of smoke.

It is usually burnt on the exterior in a series of artistic devices. Among the Torres Straits Islanders, who are more closely allied to the pure Papuan, representations of the shark upon it are not uncommon.

I was uncommon to find them growing their own tobacco in the interior of New Guinea, but the natives much prefer strong European tobacco to their own; they seem madly fond of *kuku*, and would pawn their very clothes for it if they were any. But I am doing them an injustice, for the men do wear a *tsi*, or single tape, varying from half to one inch wide, strapped tightly round the waist, one end of which is then passed down the back beneath the body, and fastened up in front; and the women wear a *rami*, or fringe girdle, fifteen inches deep, encircling the loins. The chief implement of war is the *io*, or spear, made entirely of wood, and barbed toward the extremity. Some of the most common kinds used for hunting are generally about nine feet long, and made from the trunk of the cocoa-nut palm. Bows and arrows are less used here than farther west, or among the neighboring islands, nor are the points of the arrows poisoned as they are there.

The same kind of *aurai*, or bone dagger, obtained from the cassowary, is however used.

Wooden swords and stone clubs are also among their weapons. Their swords are five feet long, with flat blades half that length, and four inches wide, sharpened and pointed at the end, having round handles wherewith to wield them. They are not unlike those used in the Fiji and other islands of the Pacific, as well as by the wild bush tribes near Rockingham Bay, on the eastern coast of Australia. The "Stone Age" still reigns in New Guinea, and if metals exist they are certainly unknown to the natives, plumbago excepted. The stone of which their club and hatchet heads are made somewhat resembles the more common kind of greenstone found in New Zealand, and is brought chiefly from the interior by the mountain or Koiari tribe. Sometimes they bring the stone in an unfinished state, and being tough and capable of a high degree of polish, it is much prized. It requires some weeks to work one into the required shape, for their manner of doing it is of the most primitive description. A flint or some harder stone is obtained, and with this they hammer the greenstone incessantly until it is worn to a point, and then rub the surface to grind it smooth. The most common form of club used by the Motu (or Port Moresby) tribe is that of a flat stone six inches in diameter, with a hole in the centre, into which is fastened a handle three feet six inches long. A sling is attached to carry it by, and the head is decorated with many-colored feathers. The first stone tomahawk or hatchet I saw in New Guinea was at Roro, and I found them in vogue throughout the whole country. The handle is formed out of the forked branch of a tree, and the stone or cutting tool is firmly bound on, either with string made by the natives, or fine cane. A *kesi*, or wooden shield, about two feet six inches long by one foot six inches wide, is also used by the Motu, partly covered with plaited wicker-work. The only musical instrument is the *gaba*, or drum, similar to that used by the pure Papuan, but smaller, and not so well carved. It is shaped like an egg-glass, hollowed out of the trunk of a tree by means of fire and the tomakawk, and is about two feet long and seven inches wide at each end, diminishing to half that width in the centre. Over one end a piece of snake skin is stretched tightly; some have handles neatly carved out of the solid wood. As a signal, the *Triton variegatus* shell is sometimes used; the shell has a hole drilled in the spiral chamber, through which a deep whistling sound can be produced.

The natives show considerable skill in making nets, spinning the string from the fibre as they proceed, so that when finished no knot is visible. These are made all sizes, from the *wain*, or little netted bag for carrying betel-nut, to the large *kiapa* for vegetables and firewood, or to the still larger *reki*, or fishing-net, each size having its distinct name. When at Roro, I purchased a hammock for a single fish-hook, but we found this article of barter valueless elsewhere.

CHAPTER V.

EXCURSIONS IN THE NEIGHBORHOOD.—CANOES PREPARE FOR SAILING.—ORNAMENTS, AND GENERAL APPEARANCE OF THE PEOPLE.

We spent a few days in making shooting excursions in the neighborhood of our camp, but though birds were fairly plentiful there were not many varieties; kangaroos, however, were very numerous, though extremely shy. The natives soon began to understand us, and clustered more than ever from morn till night round our tent, gabbling together and seeking for admission, tobacco, and beads, all at the same time. The whole population, knowing I was collecting a few natural specimens, became my collectors, and brought beetles, snakes, lizards, bats, flying-squirrels (*Belideus ariel*), butterflies, and all sorts of things, in return for which they were paid either in beads or tobacco. It became a regular nuisance, too much so to continue, for during that time I could neither write nor obtain any information, the continual disturbance was so annoying.

I therefore declined accepting many specimens, which greatly reduced the number of my collect-

ors. The following is from my diary: "While I am endeavoring to write, a couple of snakes are busily engaged twining themselves upon a beam in my tent, two swallows are chirping in a trap, a malicious squirrel has just bitten the finger of one of my collectors, some rats are waiting to be placed in spirits, and the hot day has made a dozen birds, although only shot this morning, smell the place out." During one of my excursions I broke the trigger of my double-barrelled muzzle-loading gun, which Hargrave, who was a veritable *sine qua non*, replaced by a new one made from a bit of sheet-copper.

Two little boys—sons of one of the Ilivara chiefs, named Mir—aged about twelve and fourteen, began to be constant attendants in our morning's shooting excursions, carrying home our birds and assisting in other ways. We named them Jack and Harry, the former being the elder of the two. They quite appreciated our presents of biscuit, tea, beads, red serge, looking-glasses, knives, and tobacco, and soon began to love us, so that a mutual trustfulness was established. Both were as naked as when they were born, for they had not yet adopted the *tsi*, or tape, before mentioned. They were well-made, hardy little fellows, with tremendous appetites, that could not be appeased. They were always hungry, and in that respect took after the remainder of their tribe. On an average we shot about fifteen birds a day, that is to say, between the hours of six and nine o'clock, after which the heat became insufferable, although it was only the spring of the year; the hottest month being February, and the coldest August.

It was now the commencement of the second week in November, and the preparations which had been going on for several days past in getting canoes ready for their annual trading voyage to Ilema, some hundred miles north-west, appeared to be at last completed. Every day the sailors hoped to start, and only awaited a favorable breeze. They evidently anticipated fair weather for their frail canoes during this and the following month, until they should again return. The first night they intended to anchor off Redscar Head, the second at Roro, where they would stay a few days, and expected to arrive at their destination in Ilema in a couple of days more. Some of the canoes go as far as Ipiko, which I think cannot be far from the Aird River, so that this voyage is a total distance of about two hundred miles, or there and back four hundred! When on these long sea-voyages, two, three, or four of the largest canoes are lashed firmly together side by side with ratans. When bound together in this way it takes the name of a *lakato*, the next in size being called an *akona*, one still smaller an *atsi*, and the smallest canoe of all a *vanaki*. Thus each kind is readily distinguished. Some of their *lakatois* are propelled by half a dozen square sails, made of matting, each set between two masts, and others with a single elliptic-shaped sail. Streamers take the place of flags, and a couple of steersmen stand at the helm working wide oars which act as a rudder. The elliptic sail is as picturesque as it is original, but what advantage it has over the ordinary ones, which must take less time to make, I am unable to say.

The material of which this sail is made is, I believe, the bark of the sago palm hammered out into a sort of cloth.

Upon the beach a few heaps of pottery still remained for the *lakatois* to take away, most of them having been already put on board. I now quite understood the reason why the natives had been so anxious to collect for me, and to dispose of their body ornaments. The payment they received would be very valuable in the eyes of distant tribes, to whose country they were destined, and would greatly assist in buying sago—the principal object of their voyage—as well as yams, taros, sweet-potatoes, betel-nuts, sugar-cane, and other minor commodities.

In all there were two *lakatois* from Anuapata, two from Tanapata, one from Ilivara, and one from Baruni, a small village on the shores of Fairfax Harbor, belonging to another tribe, called Koitapu.

But the weather still remaining unsettled and the wind blowing lightly from the west, several

days had still to be passed before they could put out to sea. They therefore inaugurated their expedition by holding regattas almost every day. The canoes would start from Anuapata crowded with men and women, and make round some point or reef in the harbor and back again, all on board seeming thoroughly to enjoy the fun, dancing round the platform (their substitute for a deck), singing and beating their drums at the same time. Their rude laugh was pleasant to hear, and what seemed to be a "hurrah," and had evidently the same meaning, ascended often from their midst, and was carried o'er the waters on the wings of the breeze.

It is doubtful if our greatest oarsmen enjoy themselves more on such occasions than do those unscientific tars.

On Monday, November 8th, I walked to the summit of *Ororo*, meaning "Mount" Tapaharti, which shuts in the end of the valley behind Anuapata, and joins the western with the eastern range. The track thither passes through open forest-land growing coarse green grass and trees and scrub, with banana plantations neatly fenced in here and there. The most common birds were the butcher, laughing jackass, bower, leatherhead, metallic starling, cuckoo-pheasant, and podargus. The black and white Torres Straits pigeon, white and black cockatoos, and the green mountain parrot are likewise met with. From the summit of Mount Tapaharti (seven hundred and forty feet above the sea) a most extensive and grand panoramic view is obtained of numerous chains of mountains. The shape of the mountain upon which I stood resembled somewhat the keel of a ship overturned—what would in Java be named "Tankoeban Praoe." Its sides rise very abruptly; the higher part is covered with tufts of grass, and the lower with scrub and forests. The soil throughout, both on the hills and in the valleys, is of the poorest, and strewn with loose stones, pieces of rock, and sea-shells, such as the *chama*, *strombus*, *cyprea*, *conus*, *nerita*, and *spondylus*, which resemble those of the present day. This shows that the land is of comparatively recent formation, and is rising slowly but surely from its original level. As I stood on the mountain and gazed eastward, the difficulty of crossing those thousand ridges, that stood before me like so many opposing barriers, came upon me with all its force. A valley of comparatively even ground extended some distance; but beyond this rose hill after hill, mountain after mountain, until in the far-off distance, discernible only above the clouds themselves, rose a range of mountains of stupendous height and proportions.

I have seen Switzerland with its grand and magnificent Alps, the white-capped Pyrenees, the wild Scandinavian ranges, the noble Caucasian chains, besides many others of scarcely less grandeur, but I was never before so much struck with any mountain scenery, as when I first beheld that of the eastern peninsula of New Guinea from the heights of Tapaharti. I must, indeed, confess that, as I looked upon that unknown country, and saw so many ranges, with the huge Owen Stanley in the distance blocking up, as it seemed, all possible communication between the district on one side and the country beyond, my heart for a moment sunk within me. The country had not yet been visited by white men; the disposition of its inhabitants, reported to be cannibals, was unknown; I had no men or animals in prospect to carry provisions, and I knew not whether provisions of any sort could be found *en route*. I could discern no villages, no plantations, nor cultivated ground of any sort, though in four places smoke was rising as if from burning the long grass. Travelling in any part of New Guinea is difficult, unless for a properly organized and expensively fitted-out expedition.

In Africa you may, besides other quadrupeds, get camels and mules; in Australia, horses; in Persia, mules and donkeys; in Kamschatka, dogs; in Siberia and Lapland, ponies or reindeer; and in *all* you may find MEN; but in New Guinea neither an animal nor a man can be procured. The three largest animals inhabiting that great land are the *mikani*, or kangaroo, about the size of the smallest Australian species, com-

monly called a "wallaby;" the pig, which is frequently kept in a domesticated state, and when wild usually inhabits the river banks; and the barkless dog, resembling the Australian wild dog, or dingo, in its peculiar yelp, which is found in every village. But none of these could be used by us as baggage animals. The men have a great aversion to leaving their native villages, as they live in some fear of the adjoining tribes, though we were unable to discover any good grounds for their alarm. To us they appeared to receive strangers hospitably, and to be well received by them in return.

For a long journey inland, some animal to carry your baggage is indispensable. You cannot rely upon finding a village every day, nor, if found, can you be sure of procuring anything to eat. The Motu tribe, at all events, would see you starve before they gave you food; hence a quantity of "trade," i. e., European articles of manufacture to exchange or barter for native articles of diet, is an absolute necessity.

The little Timor ponies are well adapted to insure the success of any lengthened expedition into the interior. The distance it is necessary to bring them is comparatively short, they cost little, are capable of the greatest endurance, and are already acclimatized and accustomed to mountain tracts. Mules could be imported from the Philippines, but their superiority is questionable. We had none of these. An English bulldog would likewise have been a very valuable acquisition as a day and night watch, but no dog of any kind could be procured in Somerset. The bark of such an animal would nearly frighten the natives out of their wits. When the *Ellengowan* landed a sheep on her first voyage, the people ran away from it in great fright, and could not be induced to go near it. I regretted, therefore, not having brought a dog, for the natives around us were such expert thieves, inveterate liars, and confirmed beggars, that they had to be continually watched. It would have taxed the patience and 'cuteness of a London detective. They were also some of the most independently disposed persons I ever came across, their conduct several times necessitating their ejection from our camp—a step they did not seem to appreciate.

On the 9th of November Hargrave and myself went in a canoe to Fairfax Harbor, at the entrance of which lies the island of Tatana, about half a mile across, and very unattractive. On its northern side is the dirty little village of Pori, containing about sixty inhabitants; a few banana plantations have been attempted; but as they scarcely produce anything, the people get from the adjoining main-land whatever they are able to procure by theft. The island is rocky, and strewn with pieces of a carnelian-colored flint, called by the natives *vesika*, and used for boring holes through shell, bone, or other hard substances, in the manufacture of body ornaments.

We discovered, for the first time, that our friends were mechanics, being the inventors of a rotary drilling-machine, having a to-and-fro motion, spindle, and fly-wheel! A sharp piece of *vesika* is bound firmly to the end of a wooden spindle two feet long, on which is fastened a piece of heavy wood or some stones, answering the purpose of a fly-wheel. A string is attached to the top of the spindle, and made fast at each end to a horizontal bar or handle, nine inches long, sliding up and down the vertical spindle. Some little dexterity is required to work the machine. The string is first twisted by turning round the spindle, and then, by suddenly pressing down the handle, sufficient momentum is established to retwist the string in an opposite direction, when the same process is repeated. It is wonderful how quickly they perforate shells in this manner. We have several kinds of fiddle and other small hand drills in England, but I do not remember having seen this particular motion in use. The Polynesians, however, have a very similar drill.

The Koitapu village of Baruni is situated on the main-land to the east of the island; the channel which divides them is shallow, and the water so clear that the different sorts of coral grow-

ing at the bottom of the sea can be easily seen. The channel on the other side is deeper. The term Koitapu does not appear to belong to any one distinct tribe, but is given to certain among them who formerly inhabited the interior, and who have either left voluntarily or been driven to the sea-coast. Their villages are not built upon the beach, but on the hills overlooking; nevertheless, like those on the coast, the houses are erected upon piles. The people do this for several reasons, to admit ventilation through the floor, to catch the full force of the breeze, and to afford some security against intrusion.

We found the neighborhood of Fairfax Harbor most barren and desolate-looking. The ground rises all around in a succession of hills, and the soil possesses insufficient nutriment to support vegetation; one beautiful green patch alone contrasted favorably with the rest. We afterward went several times to the Koitapu village of Baruni, both by canoe and overland, always creating much interest on our approach. Although situated so close to Anuapata, yet the Koitapu, being composed of several inland tribes who have come to live by the sea, speak a different language, and not only so, but also several distinct dialects among themselves. The language spoken by the Koitapu and Koirari, or inland tribe, supposed to be originally the same, differs now in many respects, though the majority of words are still identical.

The country of the Motu averages only ten miles wide, with a sea boundary extending from Anuapata to Kapatsi, thirty miles to the north-west, and from Anuapata to Kapakapa (near Round Head), thirty miles to the south-east. The vicinity of Anuapata is called Ulalamakana. The color of the Motu natives is slightly darker than that of the inhabitants of Roro, varying however in different individuals from the lightest, resembling that of a Portuguese, to the darkest, which is a rich shade of chocolate. Compared with them a pure Papuan looks black, and on account of this and his cannibal propensities he is generally disliked by the light Papua Mahori race, who inhabit the east of New Guinea.

The Motu women have rounder features than the men; the eyes of all are brown, the nose aquiline, but inclined to thickness. They have large mouths, well-formed lips and ears, and slightly prominent cheek-bones. Their hair grows luxuriantly, and is usually worn frizzed out into a light airy mass projecting six inches round the head, and destitute of any parting. In color it is generally black, but sometimes a burnt sienna tint is visible, especially toward the extremity of the hairs. They are very diminutive in stature, are slightly built, but well proportioned, athletic, good-looking, merry, and fairly intelligent. I had some difficulty to coax them into permitting me to take their measurements; but having succeeded in measuring six persons of both sexes, I found the average height of the men to be five feet four inches, and of the women four feet eleven and a half inches, while the girth round the chest of the former averaged about two feet nine inches. They marry young; the features of the women soon become wrinkled, and anything but fascinating. Both sexes are particularly fond of body ornaments. Suspended from the top of their ears they wear three or four strings of red beads, each about six inches long, with a berry at the end to add to its effect. If beads are not possessed, a bunch of variegated crotons or ferns is placed in the lobe of the ears, and strings of seeds round the neck.

Double and treble red-bead necklaces are treasures which few possess, and the swaggering walk of the ladies who are so bedecked is really laughable. *Tautaus*, or necklaces, made of the little *nassa* shell, ground down and drilled, are common; but those worn by the more fortunate among them, made of the eye-teeth of dogs, are so highly prized that I could not obtain one. Bracelets and armlets made of finely plaited grass, or strips of kangaroo-hide, the claw forming a buckle, are likewise worn by the women as well as men. Tucked into the armlets, and brought slightly to the front, small bunches of crotons, sweet-scented herbs, or the gorgeous hibiscus, are often seen, lending a most pleasing

and effective contrast to the color of the skin beneath. The boys have frequently straight hair like the Malays, but the old men's hair is inclined to curl in ringlets. The young unmarried swells sometimes wear a shell forehead ornament, fastened at the back of the head, by means of which the hair is brought into a sort of bob. Into this bob is thrust an *iduari*, or pronged fork, so as to be ever ready for giving it a frizz up or a good scratching, as occasion may require. *Mukoras*, or nose-ornaments, passed through the septum of the nose, six inches long, turned up and tapering to points at the extremities, like cows' horns, cut out of the shell *Tridacna gigas*; and *mairis*, or pearl-shells, are among their remaining ornaments. On very festive occasions, cassowary, bird-of-paradise, and parrot feather head-dresses are also worn. On going into mourning, they shave off all their hair with a piece of shell (or glass when they can get any) in the most dexterous manner; but it was some time before we could discover with what substance they blackened their bodies. It proved to be plumbago, the only metal known to them, an extensive vein of which ran only a couple of miles behind my camp. They continue to blacken their bodies for about three months after the death of a near relation, and the more distant relations show their respect by merely painting black streaks upon their faces. The women are all much tattooed on their bodies, arms, legs, and faces; but the men less so, and very often not at all. Those only among them who have been renowned as warriors are deemed worthy of such a mark of honor, so that these may readily be distinguished by the tattooing on their foreheads. The face is often streaked with a rose-colored lime, and tattooed with an Egyptian pattern, while the body is marked with V's, N's, and X's in endless variety. The devices vary among each tribe, and are so numerous that any description would be tedious.

The Motu wear no beard, mustaches, or whiskers, but pluck out each hair separately, having a great prejudice against its growth on the face, and it is not an uncommon habit to pluck off the eyebrows and eyelashes likewise. Their legs and chests are devoid of the hairy ringlets that so conspicuously grow upon their darker brethren, the pure Papuan and Kulkaliga race. They have very fine short hair on the legs and arms, but scarcely any upon the body.

CHAPTER VI.

EXCURSION TO THE RIVER LAROKI.—ALLIGATORS.

I HAD made arrangements for a preliminary expedition on the 10th to a certain river, supposed to flow in the direction of the setting sun. According to the natives, it was not far off; but so vague are their ideas of distance, that it was impossible to tell from this information *how far*—it might be only five, or it might be as much as fifteen, miles away. We knew it could not be very far, as some of them had recently been there in search of ratans for binding their canoes together. Boi, one of the Anupata chiefs, had been engaged to act as guide.

Punctually at six o'clock we all started, excepting Boi himself, who failed to put in an appearance until we had marched three miles, when we observed him walking quickly toward us carrying a couple of hunting-spears.

My faithful little servants, Jack and Harry, who knew the way to the river, had been so far acting as guides, and another little native boy we called Dicky helped to carry a few odd things. We had each a revolver and double-barrel gun to shoot birds or kangaroos, but we found the country behind Anupata so deserted that we might have dispensed with our revolvers. At the eastern end of Mount Tapaharti is the pass, four hundred and ten feet high, which has to be crossed in order to arrive at the valley on the other side. The track passes through open forest-land of gum-trees (*Eucalypti*), standing about fifteen yards apart, and offering but scanty shade. The intervening area is filled with coarse grass, which was then about three feet high. Through this a narrow path has been worn, and as you

walk along its blades bend forward with a rustling noise, and a few hours afterward resume their former position. It is by the bent position of this grass that a kangaroo is often tracked. As I said before, from its springing motion, a kangaroo is not easy to shoot; but these bare-footed and naked hunters approach so stealthily, that before the animal is aware, their spears fly through the air and pierce it as it is just about to hop away.

Boi was considered a great hunter, even among his own people, and once or twice before we were aware of his absence we suddenly saw him several hundred yards off running with the fleetness of a deer through the tall grass, spear in hand, ready to launch it forth at an unsuspecting wallaby. After an hour's march we came to a pool of fresh water, hidden among rushes; white water-lilies flowered profusely upon its surface, and small fish played about beneath. As the day was very hot, though yet early in the morning, we were all glad to refresh ourselves, and replenish our bottles with this sweet water, for we knew not when we might come to more. After leaving this pool the valley spreads out to a considerable width, and high mountain ranges appear far ahead above the gum-trees. Wallabies now became very numerous, and we occasionally saw flocks of twenty or thirty in the distance, hopping off as fast as their hind legs could carry them. Several times we nearly trod on one or two which lay hidden in our track, but they were off before we could point a gun at them. As we expected to have to depend upon their flesh in great measure, we hoped for better luck when we became more accustomed to their movements. Passing through a row of pandanus-trees, we soon afterward, at the seventh mile, came to a slow-running stream of clear water, which the natives called Baikana, and rested for a few minutes under the shade of some fine tall trees growing by its side. White, black, and green cockatoos sported over our heads, but they were sufficiently wary to keep out of shooting distance.

We peppered one or two, but they flew off, no doubt, to inform their friends, who took timely warning and kept away. Two miles farther on, our path crossed the western slope of a rocky mountain called Nebila. The Maikabu country (for such was the name of that we had been traversing) is an extremely poor one. It is true that along the centre or deepest part of the valleys there is a narrow bed of alluvial soil; but when we come to compare its small extent with the immense tracts of barren country all around, the infertility of that part of the country is at once apparent.

Descending the other side of the Nebila Pass by an easy gradient, we saw beneath us a beautiful green plain, resembling a field of spring wheat, and differing in the freshness of its color from anything we had passed. Such was its height and luxuriance that at times we were hidden from one another, and found difficulty in wading through it, the track being completely lost. As we emerged into the open again, the sun was pouring down his melting rays, so that we were glad to avail ourselves of the welcome shade offered by a row of trees growing to a height of one hundred feet, with perfectly upright trunks. Beneath them grew a sort of dwarf palm, frequently known as the "lawyer palm," on account of the numberless sharp thorns with which the stalks of its leaves are armed, and from which, when once entangled, it is difficult to disengage yourself. The swampy nature of the ground here denoted that we had arrived near a stream which at times overflowed its natural banks, and in another minute we were sitting on the pebbly beach of the River Laroki.

The distance from Anupata proved to be about ten miles, and we had been nearly four hours in walking there. The river was twenty-five yards wide, and, although evidently much below its usual depth, it was still very swift. I made Boi understand I wanted to know where the river flowed. Pointing westward, he said, "*Laroki—lao, lao, lao, lao—Manumanu*," stretching out his arm farther and farther at each word *lao*, and literally meaning, "*Laroki—goes, goes,*

goes, goes to Manumanu," the number of "*goes*" implying that it went a very long way in the estimation of the natives. It is sometimes spoken of as the River Manumanu; but so little intercourse have the people with each other that the name of a river becomes changed during its course, being generally called after some village through which it passes. There is little doubt but that it is the same river as the Usborne of Captain Moresby, flowing into the sea close to the village of Manumanu. I shall speak of it in future as the Laroki. We were about to undress and have a plunge, but Boi cautioned us with the words, *Lasi lasi*—"No, no"—opening his mouth to its full extent, saying, *Uala, tika*—"Alligator, bad." He nevertheless had a bath himself, as well as the other natives, but it appeared afterward that they feared our white skins attracting the attention of the brutes. It was a treat to drink its sparkling waters, especially when diluted with a slight tincture of cognac. Doves of the species *Ptilinopus* were especially numerous, and we shot several of these beautiful birds. We frequently saw the rare *Malura albertensis*, or little black-and-white wren, fluttering among the tall grass or low shrubs. We also found footprints of the cassowary. A terrific thunder-storm now broke over us, the heavy rain spoiling many of my birds and drenching us to the skin.

We returned tired and foot-sore, for a twenty miles' march in the climate of New Guinea is too much to be pleasant. The ground in some places is so rocky that unusually strong boots are required, and mine, having been unfitted for a country of that nature, were entirely cut to pieces. I should recommend strong laced-up boots, with plenty of stout nails on the soles, for without them the feet soon become sore, and, when once sore, remain so for a long time. I had ordered some among my outfit from Brisbane, but I have already alluded to my misfortune in having been disappointed at the last moment by the firm who had undertaken my commission.

CHAPTER VII.

NATIVE CURIOSITY.—MARRIAGE CUSTOMS.—HABITS OF THE CHIEFS AND PEOPLE.—CHARMS.

FOR some days after our return my feet were so painful as entirely to prevent my leaving the tent; but by the use of cold cream and bandages they gradually got better, though they never actually healed for three months!

Much of my time was, therefore, spent surrounded by an average of thirty natives all the day through, from seven o'clock in the morning till the shades of night set in. Do what we would, it was impossible to keep them out; they flocked round us as though my tent was a wild-beast show, and at eating-time their numbers generally increased. It might have been a den in the Zoological Gardens. Under such circumstances, and with the oppressive heat of 108° in our tent, we required a considerable amount of patience and endurance. Every few minutes some one would bring an article for sale, such as a crushed beetle, a tattered butterfly, a dead shell, many things entirely useless; but they imagined we ought to buy all, asking repeatedly for *kuku* and *akev*, tobacco and beads, and remaining hours in hope of obtaining some of these highly prized commodities. Even little babies learn to utter the word *kuku* before *tinana*, "mother." I never knew a people so fearfully fond of this weed. *Kuku* is their god, whom alone they worship and adore. The word *kuku* escapes their lips more than any other in the course of the day, and is ever in their thoughts. Its praises are sung in their *hehonis*, or night-chants, and your health is smoked with it in the daytime:

"Nea, nea mama buaboa,
Sigore kuku waka"

is often heard ere the pipe is placed to the lips. It is the cause of joy, the cause of sorrow, the cause of friendship, the cause of enmity, the cause of content, and the cause of discontent. A tradition says that the tobacco seed was first found in Ilema, and introduced by a woman named Ivá. The ladies are as great adorers of *kuku*

as the sterner sex, and hold their own among the men, some a little more than their own. They are not down-trodden or degraded like the women to the west, but are the principal traders, driving the hardest bargains, and talking as quickly and loudly as possible.

In the evenings I sometimes played the violin, though in such a manner that an English audience would assuredly have kept away. However, my performance had quite the opposite effect here, and I often had no less than one hundred people admiring the squeaky notes drawn from its greasy strings by an unresined bow. The melody thus produced cannot have been very sweet, but my audience appreciated it thoroughly, coming up in daily increasing numbers to listen to the wonderful instrument from which so many sounds could be obtained.

"Music hath charms to soothe the savage breast," and knowing this, I had brought an instrument, which I had fortunately been able to procure in Somerset from the steward of a passing ship, the *Singapore*. It was not a good one, as I have already intimated, but answered my expectations admirably.

Old Ila, the greatest chief of the Motu—the king of the neighborhood—became very fond of taking up my fiddle and bow, and scraping away to the great delight of all around. From the mildness, I might almost say sweetness, of his expression, no one would have thought he had been a great warrior in his time. He had no idea of his own age, but I imagine he must have been about sixty-five years old, short, with features wrinkled and weather-worn, a high, wide forehead, and small dark, twinkling eyes. His hair was short, and stood up in a series of small black locks, among which a few silver threads were visible, and he spoke with a gentle and pleasing voice. He is generally as naked as the others, but now and then takes it into his head to come out in a night-gown cut short, that had been given him. Having recently been deprived of two out of his three wives by measles, he appeared to endeavor to make up for their loss by securing from us as many presents as possible, which he asked for in such an agreeable way that it became impossible to refuse. His fascinating manner may perhaps account for his being the only man I found who had ever had three wives living at the same time. Kuba, the next chief, is a very different man; tall, pitted with small-pox, of a most unintelligent, if not displeasing countenance, and as great a beggar as the greatest. Boi, the other chief, became a great friend. They all possessed some good qualities, though these are much disfigured by thievish and begging propensities. The principal chiefs of Tanapata are Hini and Masseri; and the chief of Ilivara is named Pipi.

Of these Hini was the most importunate; he has a numerous family, who follow the example of their worthy parent in this respect. One of his daughters, named *Buruma*, meaning pig, was perhaps the prettiest girl for miles round. Her face was round and features regular, with dark, languishing eyes, long eyelashes, and well-proportioned body. She seemed to be aware of her beauty, and was not a little vain of it.

She always wore a dogs'-teeth necklace, which had been given her by her lover, as a token of their engagement. The following articles, or some equivalent for any one among them that the suitor does not happen to possess, are necessary to induce a father to consent to his daughter's marriage: one dogs'-teeth necklace, or *dodom*; one pearl-shell, or *mairi*; one pig, or *buruma*; one nassa-shell necklace, or *tautau* (about six folds); one stone tomahawk, or *ila*; one white cone-shell armband, or *toia*; one spear, or *io*; and two women's girdles, or *ramis*, made from the sago palm and colored. The number of wives a Motu may possess is limited only by the amount of his riches; notwithstanding this, it is quite the exception for any of the Papua-Mahori race to have more than one wife, as their women strongly object to the system of polygamy.

With the darker race, the pure Papuans, however, plurality of wives is common. Few men over eighteen years of age remain single, but, as a rule, their progeny is not numerous.

The Tanapata and Ilivara natives are more active and noisy than those of Anupata; and when the moon, which is unusually brilliant there, sheds her light upon that infidel people, they commence a monotonous chant in three notes, which they continue to the beating of their drums until one or two o'clock in the morning, or even till sunrise. The fluctuations in time give to this chant the effect of music, more than the variation of the notes can possibly do. The chant resembles one that is sometimes played on a bedroom door, "Go to bed Tom, go to bed Tom, get up in the morning and beat your drum," repeated *ad infinitum*.

This is often varied by the whining of a quantity of lean dogs, too uncivilized to bark. Their noise is hideous, as though they were being thrashed with sticks, and when one commences all the rest join in. I know of no race of human beings unable to speak; and when I first heard of a class of dogs unable to bark, I was exceedingly incredulous, for I imagined both equally natural gifts. But these animals can only whine and yelp, and this they do in the most piteous tones imaginable.

The days passed rapidly away, and it was getting time to make another excursion inland.

On the 15th I had a fence constructed all round my camp, leaving a clear space of four feet. It was put up by the natives themselves, and when finished proved of great service. It not only allowed us to unlance the back entrance, but kept the natives from placing their hands underneath the tent-cloth when outside, and stealing our things, which they had often attempted. Such a vigilant watch, however, had been kept upon their actions, that we had lost only a few trifles; and had sometimes caught them just in the act of extracting a hatchet, knife, pair of scissors, or other article. Neither men nor women seem to have any sense of shame, excepting when discovered in a theft, nor then at the act of stealing, but at the supposed disgrace of being found out. They excel in this kind of petty pilfering, but are timid, and dare not attempt, under ordinary circumstances, to force open a box. Their morals are superior, as a rule, to most savage tribes, but they are far from being modest. They are fairly intelligent, quick in comprehension, and not slow to resent a supposed insult, but capable of appreciating kindness, and soon become attached.

A person who would fill them incessantly with food—*aniani*—and give them tobacco, would be their very best friend. He would live in greater safety among them than in some European cities. They appear ungenerously disposed compared to the South Sea Islanders, but the truth is they have very little to give away. Fowls, yams, and even pigs are not uncommonly presented by the natives of the Polynesian Islands, in return for kindness; but fowls have only recently been introduced into New Guinea, yams are scarce, and pigs (first imported by Captain Cook) are by no means plentiful. No wonder, then, that food is so highly valued, and that a gift of anything eatable becomes an important matter.

Once or twice we received small presents of unripe bananas (which never ripened), or a cocoa-nut, or the smoky leg of a wallaby. The usual payment for a cocoa-nut was the lid of a gun-cap box, full of red beads; but, on an average, not more than three were offered for sale per week.

Their standard of religion is at its lowest. They are perfect infidels, believing in no God; but they have a sort of belief that after death their spirits will inhabit the space above the sea, called by them *taurau*.

A few years ago they had no idea of any land existing but their own, and when at rare intervals the sails of some distant ship, which had no doubt lost its reckoning, were seen on the horizon, they believed them to be a spirit, or *vaoha* floating over the surface of the deep. This and the fear of an evil spirit, called *vata*, appear to constitute the only semblance of any religious feeling that exists among them. They attribute any extraordinary occurrence to the supernatural agency either of man or of *vata*. Stone charms

are sometimes placed in the houses of the Motu to cure an invalid, and in the plantations to make them more fruitful. They are usually but a few inches long and roughly carved, sometimes in the shape of an egg-glass, with a small projection on one side. Charms are also worn in the dance and in war by many of the tribes, for the purpose of giving supernatural endurance and strength. At such times the natives carry them in their mouths.

CHAPTER VIII.

PREPARATIONS FOR A JOURNEY INLAND.—UNWILLINGNESS OF THE NATIVES TO ACCOMPANY ME.—DEPARTURE OF THE LAKATOIS.—A CHIEF CAUGHT IN A THEFT.—HUNTING FOR VERMIN.

It was now time to commence packing up for our second excursion inland, and the 16th was devoted to that purpose.

As we could not calculate upon finding natives willing to carry our necessary provisions, etc., I fixed upon thirty pounds as the limit, if possible, for each of us to carry, including in that weight twelve pounds of cabin biscuits. However, when everything that could be dispensed with was rejected, we found that each person's load or "swag," as it is commonly called in Australia, amounted to no less than forty-five pounds. Under a tropical sun, during nearly the hottest season of the year, and over a mountainous and rocky country, this weight was terrific—it was too much for a cool climate, and there it was insupportable. What were we to do? We had offered every inducement we could think of to any natives who would accompany us, but none volunteered—they seemed afraid of the Koiari or inland tribe.

A guide to Munikaira, a friendly Koiari village, supposed to be about twenty miles off, would have been extremely useful, for there we might perhaps have obtained other assistance. In the evening most of the chiefs assembled in my tent.

Old Ila, the chief of chiefs, spoke first, the interpretation being somewhat as follows:

"These Biritanis" (the missionary had taught them to call us so) "wish to see our great country, they wish to see the great mountains far, far off" (in reality not more than forty miles away), "to go where we have not been, but we ask them to stop here. What will they not get if they persist in going? Fever, ague—no, they will never come back, and then the Biritanis will send a big ship and will say to us, 'What have you done to our people that they are not here?' Whatever happens to them, they will say we killed them, and then burn down our villages and kill us all."

The others exclaimed, "It is so."

Then Boi said, "My leg is bad, and therefore I cannot come."

It is true that he had an abscess forming upon the calf of his right leg, but that had not prevented him from being our guide to the River Laroki a few days before, nor did it prevent him from hunting now.

Then spoke Kuba: "The *lakatois* are going to start to-morrow; they will carry many men—we their friends must see them all off—and then all that remain will be your guides and carriers to the Koiari village."

"Kuba," I involuntarily said to myself, "you're an old liar!"

Then Hini, the Tanapata chief, put in a few words, to the effect that he felt very unwell himself, or otherwise he would have gone on the morrow, not only to the village of Munikaira, but much farther.

"Hini," thought I, "you're a scoundrel!" A remarkable number felt ill that evening who had been perfectly well, begging for beads and tobacco, in the morning.

Even Jack and Harry came to say that their "stomachs trembled"—the literal translation for *boka-itola*—and they feared they must have eaten something that disagreed with them.

As it was perfectly useless to attempt going alone with such heavy packs on our backs, and without knowing a word of the Koiari dialect,

we were compelled to postpone our journey until the first favorable opportunity. The following day, which I had previously fixed for our departure, came and went, but the canoes remained stationary, and the men went out wallaby-hunting as usual.

Jack and Harry came up, patting their stomachs and saying they were better, no doubt thinking we should not go inland for some days, and that in the mean time they would be able to live on our provisions, and then could be taken ill again.

Although regular little rogues in their way, we were glad to see them, for they were very amusing, besides helping Broadbent and Petterd to carry back the birds which they shot daily in the mornings and preserved in the afternoons. Their virtues were more to us than their faults.

Another day came and passed away, but as night approached a gentle south breeze sprung up, and we were induced to hope that the canoes, which were already nearly a month later than usual in starting, would depart on the morrow, and we were not mistaken. The next day, the 19th, was one of wailing and gnashing of teeth at Anuapata. In the evening the six canoes, carrying two hundred men, all set out upon their trading expedition, regarded by them as a very formidable undertaking, much in the same light as a stage-coach journey from Edinburgh to London used to be before railways came into use. It is an epoch in their lives, a feat to be spoken of with pride—they even date events from it. The parting scene was truly affecting: a great rubbing of noses, and then wives clasped their husbands round the body and hung down their faces as if overpowered with sorrow. Little sons and daughters embraced their fathers' legs, and all wept, so that their wailing might be heard afar off. Grown-up daughters and wives grasped their hair convulsively, and in some cases tore their flesh with their nails, until the blood oozed forth, and then separated. As each *lakato* pushed off from shore, it was followed by the female relatives in single canoes, to escort the brave heroes a few yards on their way, and to take a last parting farewell. This etiquette was truly European, but the *tout ensemble* had anything but an English appearance. As they approached the mouth of the harbor, the sun set brilliantly behind, tingeing those naked figures with a crimson glow. Scarcely had the western range of hills, forming one extremity of the bay, intercepted them from our view, than night, which there so quickly succeeds day, taught us—

"In her starry shade
Of dim and solitary loveliness,
The language of another world."

But we could not help thinking of them. Though nominally an annual affair, this exodus had not taken place last year, as in their last voyage some of the canoes were wrecked and several lives lost. They had suffered much from hunger in consequence, and were obliged to live for a long time upon the fruit of the mangrove, which, although possessing sufficient nourishment to support life in an emergency, is at all times an unwholesome and unpalatable vegetable.

We had indulged in the hope that our camp would now be less troubled by visitors, but in this we were disappointed; for though fewer *men* came, the *women* became more numerous, and one woman was as noisy as two men. On the whole, however, I preferred the women, for they were more willing to remain outside than the men.

Hini, the Tanapata chief, came to see me early next morning. I was alone, as the remainder of my party had gone out shooting, and, feeling tired, was still lying upon a rug spread on the ground, which constituted my bed. Hini, nevertheless, coolly seated himself upon a box which served as a chair, on the other side of the table. As it had a cloth over it, I could not see what he was about, but he kept constantly asking for something to eat, which I did not feel inclined to give him just then. After some minutes he got up and said *Lau lao*—"I go"—and walked out.

When he entered, I had remarked my folding

corkscrew on the table, but now missed it, and immediately called him back.

On my holding up a biscuit he was induced to return, when I took from off his shoulders a small bark cloth that he wore on this occasion, and appeared to examine it, as though wishing to become the purchaser. He had nothing concealed about that part of his body next to me, so I walked round to the other side, when I beheld the missing corkscrew stuck in his left armlet, and took it out. He merely tried to hide the shame he felt at being found out by asking for tobacco and beads! I thereupon turned him forcibly out, intimating that he would not be received in my tent again.

Old Ila continued my most welcome visitor. He usually brought his little son (by his third wife), a nice little fellow (though ignorant of the use of pocket-handkerchiefs), four or five years of age, for whom he certainly showed a paternal affection. The natives will accept any plain food, such as rice, pudding, biscuit, or bread, but appear to have an aversion to many of our European eatables. Some will take tea and sugar, but they didn't like the looks of our preserved milk or tinned meats.

All are good templars, for no intoxicating liquor is made by them, not even cocoa-nut-toddy. None would taste claret, neither did I wish to persuade them; they said it looked like blood, *rara*. The tinned meats they imagined were human, and seemed disgusted at the idea of our eating them, which made me feel convinced of what I afterward ascertained to be the fact, that the Papua-Mahoris are not cannibals, like their darker brethren.

When they saw the various jars and mixtures we Britanis used, many would express astonishment; but whether it was Crosse and Blackwell's pickles, Lea and Perrin's Worcestershire sauce, Coleman's mustard, or Knight's Tasmanian preserve or butter, none would venture to taste them. Among themselves they are generously disposed, and share with each other whatever may be given to one in the shape of eatables. A small crust or biscuit I have frequently seen divided by the recipient into half a dozen portions, who would give five away and be content with the remaining small portion himself.

A very favorite pastime, particularly of the women, is hunting in each other's heads for vermin. Two, three, or four in a row, sitting one behind the other, might be constantly seen in front of my tent pursuing their favorite amusement. It is a common one among most colored races, and a wholesome practice to boot. But eating the lice is another affair. I could hardly believe my own eyes when I first saw them engaged in this disgusting employment, yet they not only eat every one caught, but appear to do it with considerable zest and relish! Whether they believe it nourishing, or take it simply as a *bonne bouche*, is not quite certain, but opinion inclines toward the latter theory.

In the early morning of the 20th I shot my first wallaby,* and carried it back in triumph, slung across my shoulders. The largest I have since killed measured five feet two inches from the tip of the nose to the extremity of the tail, which is very small in comparison with the common Australian kangaroo.

Wishing to test the people as to their idea of gold, I had taken over twenty pieces. I showed them a sovereign, but they did not in the least know what it was; and to test them further, I held out the twenty pounds, as though offering it for a nose-ornament. The chief to whom I made this pretended offer thereupon screwed up his features, and with a knowing nod said, *Tika, tika*—"Bad, bad"—adding *arkeu nama*, meaning "beads very good." I therefore became the purchaser of the nose-ornament for a thimbleful of red beads, a bargain which pleased both of us better. White quartz is abundant in the neighborhood, but we found none auriferous, nor did we see any traces of the precious metal.

From the general similarity, however, of the flora and fauna of the country to that of Australia, there is every reason to suppose that gold

does exist in New Guinea, though at present perfectly unknown to the natives. The supposed existence there of gold has been indiscreetly held out by certain enthusiasts as an inducement for a "rush." Let it first be found to exist; but in the interests of humanity I sincerely hope that it will not be discovered at present. We do not want a mob to rush madly into a not unfriendly country in the pursuit of gold; it must not be permitted, the natives are too few to be murdered. Government alone can successfully colonize it; but a "colonizing company," without proper administration and knowledge of the people, would do immense harm.

CHAPTER IX.

SECOND EXCURSION INLAND.—TREE DWELLINGS.—FRIENDLINESS OF THE KOIARA OR MOUNTAIN TRIBE.—A DECEIVER.

We had been ready for some days to make a start inland, and were becoming weary of waiting, when at last I succeeded in obtaining promises from some of the natives to accompany us. It was arranged to start early on Monday morning, the 22d of November, and that I should signal to the men to come to my camp by firing off a gun.

I passed Sunday night without a wink of sleep, anticipating what the morrow would bring forth.

When the faint gleam of the rising moon attracted my attention through the canvas of my tent, I lit a candle and found it was just three o'clock.

Shortly afterward the signal-gun was fired, and presently four men, one youth, and Jack and Harry made their appearance.

All were mightily hungry; but after eating as much as they could tuck down in the space of half an hour, they said they felt better, and were ready to go. But when a small load was allotted to each, he stared at it in amazement, and seemed unwilling to move.

They are not accustomed to bearing loads, as the women do it for them; and it became evident that they didn't intend to carry more than they could help on this occasion.

With some difficulty we made the four men carry twenty pounds each, and the others a smaller load in proportion to their strength, and we set off at five o'clock. One of the Polynesian teachers, who spoke a little English, accompanied us. A mile past the Tapaharti Pass the track turned off in an easterly direction, and we ascended a hill three hundred feet high, and then gradually descended into a fertile valley, carpeted with the common long grass, among which kangaroos are plentiful. The character of the country consists of precipitous mountain slopes, which rise in unutterable confusion, and are sparingly covered with the everlasting *Eucalyptus*, chiefly the blue gum species, and here and there with patches of other trees; narrow valleys, or in some parts long stretches of level land, lie between. After three and a half hours' walking we arrived at a beautiful running stream, wherein small fish were plentiful. The country there is called Koi-ahi. On wading through the stream, we found two wooden platforms, used by the natives for sleeping on when travelling from one village to another. Having rested beneath some tall trees growing on the banks, we proceeded on our way; nor were we sorry to leave our resting-place, as the mosquitoes were very troublesome near the water.

Presently we obtained a splendid view of Mount Astrolabe (Variata), rising precipitously about twelve miles off. It was half-past ten when we arrived at another small brook, which wound between sago palms, and here we sat down to lunch.

Boki, our leader, was a talkative fellow, and gave us the impression of a person who didn't always stick to the truth. Nevertheless, he would pretend to get very angry if we doubted his word.

"Boki," I said, "you know this part; you have been to Munikaira. In what direction is it?" pointing with my finger and describing a semicircle.

"There, there," he replied, holding up his

* *Dorcopsis luctuosus*.

arm, and waving his hand straight ahead like a person frightening flies away.

"But is it not over here?" I continued, pointing more to the north. "This surely cannot be the direction." For it seemed as though we were going too much to the east.

"No, *loiapata*" (great chief), said he, "I am taking you to it. How can you, who have never been, know the way? Where would you go to if it were not for me?"

Why should I any more doubt the words of one who entertained no cause to wrong me? I had perhaps been hasty in expressing myself, and we now marched on again in good faith.

We soon began a steep ascent, until our way ran precipitously up a mountain ridge, on which, at a height of nine hundred feet, we came to the first houses we had seen. There were only two, and no inmates visible. We had not met with a single native all day, but as we proceeded we discerned a few villages in the distance, situated on the summits of the hills. On approaching the first of these villages, called Omani, our natives cautioned us not to make the least noise, lest we should frighten the people away before we arrived. They themselves seemed alarmed, we thought, but it might be merely their anxiety on our behalf! If one of us forgetfully spoke a little loud they cautioned him, so we entered the village in silence.

It is finely situated upon the top of a steep mountain ridge, six hundred and seventy feet high. It was evident that this was not the direct route across the peninsula, for we found ourselves only eight or ten miles from the sea after a sixteen miles' march.

Exclusive of stoppages, we had taken exactly six and a half hours for this distance.

From Omani, the Astrolabe range can be seen in all its grandeur and beauty, about four miles beyond. Omani consists of five houses; one of these is built in a tree, high up from the ground, as is common in Koiari villages. When we entered we found the inhabitants at home, and Modiki, the chief, seemed pleased to see us; but the women showed signs of fear at first, and ran off to hide themselves.

Modiki placed at our disposal the front landings or stages of two of these houses, upon which we placed our traps and passed the night. To understand what these landings are like, I must give a description of a Koiari house. Its length averages twenty-one feet, width fifteen feet, and total height from the ground fourteen feet. It is constructed of stout poles or bamboos, forming a framework, the sides, roof, and back of which are thatched with palm-leaves and the leaves of the pandanus. The roof slopes from the centre beam like that of an English cottage, and sheaves of grass, four feet high, are placed as ornaments, or finials, at each end. The floor is raised four feet from the ground, and is made of sago palm-stalks laid widthways, the broad end of one adjoining the narrow end of the other. The front is also of palm-stalks, placed vertically, and has a door of the same material in the centre, swinging upon hinges made from creeping plants. This front partakes of the nature of a partition, as it is placed five feet back, thus leaving a landing or stage. It was on this part of the house that we passed the remainder of the day and night, the roof over that portion of it forming a veranda to shade us.

Modiki ordered a feast of yams, taros, and sweet-potatoes for us; and we soon afterward saw the women, who had by this time returned, preparing it in their earthen-ware cooking vessels out-of-doors. We found our host a very jovial and friendly person, who had the gift of the gab in a remarkable degree, and his voice was as hearty as his laugh. He appeared to be constantly joking with those around him, but none of us could understand more than a few words, as they speak a different language to that we had been accustomed to. Both the Koiari and Koitapu tribe dress their hair in the same way, by doing it up into a bob like a chignon, which they envelop in tappa-cloth; but the Koiari wear this head-cloth, or *veribota*, less frequently than the Koitapu. Round it they usually wear a head-dress of kangaroo teeth, and a wreath of the sombre-colored

cassowary feathers. The remainder of their attire is similar to that of the Motu, but, unlike the latter, they smear their faces on certain occasions with ashes. On the death of a relation, the islanders of Torres Straits, and I believe the dark Papuan, likewise adopt this custom. One fellow amused us not a little; his naturally hideous countenance was made still more so by whitening certain parts of it, and a wreath of cassowary feathers that nearly covered his eyes (for it usually sticks straight up) added to his grotesque appearance. He wore a curiously shaped ornament suspended from the neck by a thin cord. It was called a *musikaka*, and was made of tortoise-shell, twelve inches long by six wide, and on the front were fastened three boars' tusks. Red seeds and a couple of shells also ornamented the front, while a piece of cocoa-nut cloth a quarter of a yard wide, overlaid with feathers, hung down behind to a depth of four inches. A string of large hollow seeds which clanged together completed the ornament. I was puzzled to know the meaning of this noisy addition, but our hideous friend was very willing to show us.

First he went back a few paces, and then, taking it from its suspended position, held it to his mouth by a mouth-piece. His face immediately assumed a defiant expression, as, spear in hand, he rushed frantically forward at an imaginary enemy with great speed, and then suddenly stopped, dodged about, and ran forward again. This he continued until he appeared pretty well blown. It proved to be a charm for giving supernatural strength and endurance in time of war. Nothing could induce him to part with it, as he believed that even Vata, the evil spirit himself, would think twice before attacking a person possessed of such an instrument.

If you ask a *Koiari* where Vata is, he will point to the summit of the highest mountain; whereas, if you ask a *Motu*, he will point over the sea. Both firmly believe in his existence, and regard him as the dread Spirit of the Night, who hovers around during the darkest hours, and whose powers to destroy are infinite. In the village were a couple of graves. They bury their dead close to the houses, and, as in Eastern Polynesia, place most of the earthly belongings of the deceased over the grave. I will endeavor to describe one of those I saw: a circle of stones, about thirty inches across, was on the ground, and, supported by these stones, a number of sticks about four feet long were placed nearly upright, meeting and leaning on one another at the top. A grass girdle (as the deceased was in this case a woman) was fastened round the sticks, and over it was placed probably her only other possession—an earthen-ware bowl.

In the evening we astonished the natives by sending up a rocket. They were very much frightened when the rush of sparks took place on lighting the fuse, but when it rose above the valley and burst into a shower of brilliant stars they shouted with delight and surprise. As the many-colored stars fell to earth and died out, the excitement gradually subsided, and they breathed freely once more. Soon afterward we lay down to sleep, but sago palm-stalks, though clean and neat-looking, do not make the most comfortable floor. They present a series of sharp ridges, and having nothing soft to lay upon them, we passed an uncomfortable and sleepless night.

Long before the sun rose on the following morning we were winding down into the ravine below, making for a village on the summit of a mountain opposite. The natives who had accompanied us informed us, to our surprise, that it was Munikaira. Although only two miles off in a direct line, yet the hilly character of the country made the journey extremely tedious. After a descent of three hundred feet, we had to ascend nine hundred feet by a very steep and rugged path.

A few men—including Modiki the chief—and some women from Omani, accompanied us into the valley, bringing vegetables in net-bags. We seated ourselves on the banks of a small stream while these provisions were being cooked in our honor. Sugar-cane of fine growth was added to our vegetable meal; it was the first we had seen

in that part of the country, and was quite a treat. The soil here is black, and less stony than that in the immediate neighborhood of Port Moresby. It appeared evident from this and other indications that the farther it is from the sea the more fertile does the land become. The golden orioles (*Eulabes dumonti*) were plentiful here, and we shot some of these beautiful birds.

So long had we to wait for our repast, that the sun was high in the heavens before we finished it, and could move on.

At last we began to ascend the mountain, and on nearing the summit, which we reached by a very precipitous path, we came to the village we were told was Munikaira. It consisted of fifteen houses similar to those already described, all facing an open space, and forming around it a sort of oval. The total distance from Anuapata is eighteen miles, and the height above the sea 1200 feet. One house of rather smaller dimensions than the rest could not fail to strike the stranger's attention, from its very picturesque and commanding appearance: it was constructed among the foliage of a tall tree, overlooking the Omani valley. The floor was thirty feet above the ground, and was reached by a rough bamboo ladder, the steps of which were about eighteen inches apart. All the Koiari villages contain one or more houses built in a similar manner, and I was informed that they are so constructed in order that Vata, the evil spirit, whom both the Koitapu and Motu tribes fear, and who is supposed by them to wander about the earth at night, may have greater difficulty in approaching it. At the same time they answer all the purposes of a sentry or lookout station, for which they are essentially suited. As we entered the village, we saw no one except four men sitting on the ground beneath the chief's house. They had heard we were coming, and therefore were not astonished to see us, and shouted to us what we took to be words of welcome. Natives now came from all quarters and seated themselves beside us. Some carried wooden spears, but most came unarmed, and seemed perfectly friendly. The two chiefs, Abaka and Vanika, caused the usual feast of yams, taros, and sweet-potatoes to be prepared for us, and by the time it was ready we had partially regained our appetites. I was struck by the fine appearance of my new acquaintances, whose muscular development seemed superior to that of other tribes of the peninsula; their height is, however, below the average. One cause of their physical superiority is the greater abundance of food in the interior. They are quite as intelligent as the natives of the coast, and more energetic in their mode of talking and gesticulating. Smearing their faces with white ashes does not improve their features: old Abaka, with his Punch-like nose, looked a queer object indeed. No one there had seen a white man before, and some had not even heard of the existence of such a race, at which I wondered. One would naturally have supposed that the news of a white missionary living so near as Anuapata, especially as he had been there several months, would have reached them all. But the Koiari seldom journey down to the coast, for they have at home almost everything they require to support life. The principal object which induces them to visit the sea-coast is to bring back *rabia*, or sago, and salt. They often return with bamboos filled with sea-water. When I showed them a tin of white salt they all clustered round, and ate what was given them with as much greediness as a school-boy does a lump of sugar-candy.

I should recommend any one contemplating a journey inland to be well provided with this article of diet, as a little may go a long way toward establishing friendly relations with the natives. They were greatly delighted with the whiteness of our skins, and opened their eyes wide, at the same time giving a sort of low whistle, as they pulled up our sleeves and trousers or opened our shirt fronts. Vanika, one of the chiefs, now desired a gun to be fired off, which was done. On hearing the report, both he and some of the others fell, with their faces flat on the ground, in evident terror. One might have thought they were shot. Gradually they recovered and, turning their faces slowly round in the direction of the

sound, resumed their sitting posture. We refrained from trying the effects of dynamite upon the tall tree with the house in it, anticipating certain strong objections to that kind of practical joke, and gave several of the natives some strips of turkey-red calico instead. Beads, which had reached even Omani on a small scale, were not worn as ornaments by any here, another evidence how small must be the intercourse of the inhabitants with the coast tribes. The women are not good-looking, as a rule, but they enjoy the privileges and freedom of the Motu women, and are not the down-trodden creatures we see among the pure Papnans. They fetch water in long bamboos, firewood and vegetables in net-bags, look after the plantations, and do the cooking. Hunting, digging, and making implements and ornaments are the duties of the men; both sexes are fond of basking in the sun, and smoking when possible beneath their houses, or in the shade of the veranda. Their war implements are stone clubs and spears, which taper to a sharp point at each end, but are barbed at only one. Suspended on the landing of most of the houses was a novel sort of net, for catching wild-boar. The framework is of strong cane, eighteen inches in diameter, having a projection answering to a handle. When the pig is speared, but not fatally wounded, the framework of the net, or *korda*, is firmly held by a second person, who endeavors to get in front of the wounded beast, and, as it rushes toward him, to push it over its head. The pig's head easily penetrates the meshes, but he finds it difficult to extricate himself or turn to bite his captor. He is then easily killed.

From the upper part of the village a grand view is obtained of Mount Astrolabe, rising nearly four thousand feet, and wooded almost to the summit. As a few hours only would suffice to reach one of its peaks, I intended to ascend it on the morrow, when an unforeseen occurrence took place. The natives refused to go farther!

"What," said they, "is the use of us going to Mount Variata [Astrolabe] when we find *mikanis* [kangaroos] in the valleys, and have all we want to eat here?" (pointing to the plantations). "If there were anything to be got there, we might go, but you wish to look at it, and we cannot understand. We can see it from here, instead of going to the habitation of Vata." Abaka, the chief, said, "We can find no one from our village to go with you, and we fear you will lose your way and die. We shall then be blamed, and your friends (the Motu) will make war upon us." His words were translated into Motu by Mabat, one of our men, and then interpreted into English by the Polynesian teacher. We told him we could find our way; we simply wanted to go and return the following day, for the purpose of looking at the Tokari country on the other side, and that if we saw Vata we would shoot him. I wanted our men to remain one night in the village, even if they were resolved to return on the morrow, but no amount of persuasion could induce them. It was now late in the afternoon, and the men packed up the yams they had purchased, and, without asking payment for having come with us so far, were on the point of setting off on their return, when the old chief Abaka, seeing we were remaining without them, came up and said, "Those white people cannot stay here; if they do, all the village will leave before sunset—we are frightened."

As I was loath to give cause for ill-feeling by turning the whole population of one hundred people from their homes, I gave orders to prepare for marching back, and to stay the night at Muninimu, two miles off on a different return route. Everything was at once in confusion, and packing up was soon finished. The natives were very much alarmed, and Vanika asked if we were getting our guns ready to shoot them. Although assured to the contrary, at least three-fourths of the inhabitants had cleared out before we left, and as we bade adieu to Abaka the place seemed a deserted village. Being the first white men they had seen, they evidently felt more comfortable without such strangers, armed with implements of unknown power. I do not for a moment imagine they intended to do us any injury, as their peaceable and friendly reception

testified to the contrary. At the same time, I do not believe it advisable to go unarmed into any of these unknown villages, however friendly they may appear. An incautious act may often arouse hot words, that are more easily quieted by wearing an empty revolver in your girdle than by firing off a charged one. Patience, firmness, caution, and decision are necessary qualities to exercise when dealing with a wild, untutored people.

A couple of miles' march along a narrow ledge on the steep mountain sides, which in some places had given way, rendering the passage one of some difficulty, brought us to Muninimu, a small village consisting of four houses situated nine hundred feet above the sea-level. It has made me giddy to ride along some of the narrow mountain paths in the Caucasian mountains, but the horses there are so accustomed to them that when there is not width enough for their two feet abreast, they can step along safely by placing one foot in front of the other. These Papuan passes, however, would be impracticable even for the most sure-footed animals, and in some places it is only by leaning with your hands against the mountain side that you can make any progress.

A stately old chief and a few women were the only occupants of Muninimu as we entered. The aged chief was sitting upon the balcony of his house, seemingly in the act of contemplating nature. Perhaps he was wishing himself dead—he certainly looked very melancholy. As we approached him, he stirred not a muscle, nor manifested the least surprise. His face was long, and freshly whitened with ashes, while across his forehead he wore a band made of the fur of the cuscus, and encircling his head a wreath of cassowary feathers, that gave his wrinkled features a somewhat majestic appearance. We learned that his wife had been buried that morning, and a few yards off was the freshly filled-in grave, over which all her earthly possessions were placed. The whole lot scarcely equalled the value of a dollar, and consisted of a cracked earthen-ware pot, a net-bag, plaited armlets and leglets, a grass girdle, and some pieces of cocoa-nut shell used for scraping yams.

They seem to preserve the property of the deceased, not from any superstitious motive, but from the instincts of affection. I remarked that many persons in these villages carried a small bunch of green leaves and put it down at our approach. This I imagine was a sign of friendship. The signal of peace usually adopted by the Motu tribe is to place the forefinger of the right hand to the stomach, and then carry it to the nose. In this manner they intend to convey the understanding that they are of the same family, the same blood, as those they wish to be at peace with. We took up our quarters for the night in an unoccupied house, and early the following morning left Muninimu. The track descended into a fertile valley to the north of our former route, which we rejoined at the row of sago palms we had before made use of as one of our resting-places. After marching some time we arrived at the Koiahi stream, which flows into the sea near Bootless Inlet, and here we camped for three days, to make shooting expeditions. Had it not been for the quantity of mosquitoes and blue-bottles that frequented our camp, the time would have passed most agreeably; and even though they were a constant source of annoyance, the hours soon slipped away.

The natives who had hitherto accompanied us, fearing to remain, deserted us and made for their own villages. We were, therefore, entirely by ourselves, and while my collectors went out shooting in the mornings, either Hargrave or myself would remain behind to look after the tent and equipments. The first morning a party of kangaroo-hunters discovered our camp. The others were away shooting, and the calls of the hunters struck upon my ears at a distance, and came gradually nearer and nearer. Then I saw a couple of fine wallabies dash through the long grass and make for the stream. A dozen men were rushing after them with spears, shouting the words *o-o-i*, *o-o-i*, to attract the attention of the animals, and make them stop to see whence the call proceeded. On noticing the tent, how-

ever, all stopped suddenly, and seemed to hold a consultation.

Presently one, whom I took to be a chief, on account of the quantity of feathers he wore about his head, came forward, stopping once or twice as though hesitating. On coming up to my tent, I signalled him to sit down outside, and he then held out four *yahis* as a peace-offering, which I took, and in return gave him some tobacco.

A *yahi* is a fruit growing plentifully at this time of the year among the trees that overshadow the streams. It is, in fact, a wild mango, in shape resembling a plum, about three inches long, with a large stone inside, green in color, tasting something like guava, with a flavor of turpentine about it, very fibrous, and far inferior to the Indian mango. All the other hunters, who had been watching us from a distance, now approached, leaning their spears against a tree. By making some trifling present to each, confidence was soon established, and one of them brought me a bunch of bananas on the following day, another a little sugar-cane, and a third the hind leg of a wallaby. They were our friends and we were theirs, and some of them afterward came to see us at Anuapata. They brought also new friends, and we had to submit each time to the ordeal of exhibiting our white skins. I say white, although in reality they had become very brown through exposure. I bathed once in the stream, but the mosquitoes were so desirous of making my acquaintance that I preferred disappointing them, and did not go again. Blue-bottles, too, by hundreds, lost no time in depositing on our clothes thousands of eggs, which were hatched on the morrow into minute maggots, the thickness of thread, and a quarter of an inch long. A blanket was fixed in front of the tent door to throw more shade, and beneath it, when the tent became too oppressive, we used to sit; but it was not exactly comfortable to feel the maggots dropping upon your uncovered head. It was, however, almost a necessity, for no sooner was one brood hatched than another was just ready. In the stream was a plentiful supply of small fish resembling perch, about eight inches long; and having some dynamite with us, we thought a fish-dinner would not be unpalatable. We exploded a charge in a water-hole six feet deep, where the fish seemed most numerous, and easily obtained as many as we required. They tasted exceedingly good.

The country here was an extensive plain wooded with gum-trees, and its rich black soil was mixed with decayed coral. It proved a pretty good collecting ground, furnishing several species of birds. Fly-catchers, doves, paroquets, the blue mountain-parrot, the yellow-crested white cockatoo, the great black palm-cockatoo, bowerbirds, sunbirds, and kingfishers were among the most common species. We also shot a turkey and some brush-hens, in addition to other birds, the names of which will be found in the list of birds collected by me (*vide* Appendix).

Land shells of any description are scarce, not only here but all over the district; nor are reptiles or coleoptera by any means common. A beautiful tree grows here bearing small tufts of pale yellow, faintly scented flowers, growing both on its trunk and branches, and beneath the shade of its dense foliage butterflies and bees are ever busy gathering honey from the bloom. Flowers of any description are extremely rare and far between. The white water-lily is found on the still pools, also a small white flower, about the size and shape of a snow-drop. We saw some beautiful white ground-lilies, the flowers about eight inches across the petals, growing in whorls upon a stalk a foot high. I also found a magenta-colored lily of the same shape growing in marshy land. A light straw-colored flower, with five petals, growing on a bush and measuring two inches across the bloom, is also found, as well as a small plant bearing blossoms not unlike a primrose, but with a deep red centre and a thick yellow pistil. The double hibiscus is met with occasionally, and is used by the natives for ornamenting their heads. The white jasmine also blooms here, bringing to my remembrance, with its delicious odor, the flower-gardens of home. A species of clover, the forget-me-not, daisy, and buttercup were also observed by some of my party.

On the 27th we started back to Anuapata, being compelled to carry our own baggage. Great, indeed, was our surprise and wrath when the first words we heard from the missionary on arriving were, "You haven't been to Munikaira at all; Boki deceived you." It turned out to be perfectly true, and the rest of our followers, including even little Jack and Harry, had been in the plot, though we could not find out why or wherefore they objected to go to this village more than to any other. The village we had supposed to be Munikaira proved, therefore, to be that of Ipi-kari. The great difficulty of travelling in this country without ponies or other baggage animals, or at the very least without proper carriers from another country upon whom you can depend, is perfectly apparent.

If at the last moment the traveller can procure the services of a few natives, they will not carry more weight than from fifteen to twenty-five pounds each, and then will take him to the wrong destination if any advantage is to be gained by so doing. They are always so hungry too, and hide so much biscuit (the chief support of life on such a journey) on every possible occasion, that provisions will not last half the calculated time. They are such liars that it is impossible to put implicit faith in anything they say, and such thieves that, unless constantly watched, hatchets, knives, beads, and tobacco stand but little chance of being seen after a few days. They can never be induced to go far from their own homes, nor to remain more than a few days in the country of another tribe. Their best characteristic is that they seemed disposed to be friendly to the white man, unlike the pure Papuans who live to the west of New Guinea. They are ready to assist the traveller in their own village, by fetching water, firewood, putting up fences, collecting, and similar trifling services.

I had asked Ruatoka, one of the Polynesian teachers, his wife, and three widows, to look after my camp at Anuapata during our absence. Owing to his having slept there every night, and to their combined vigilance by day, I fortunately found everything as it had been left.

Scarcely had I entered it when Boki—who, it will be remembered, had been our leader—came in, and with great effrontery seated himself on the ground, begging for more beads, cloth, and tobacco.

He had already been paid his due for taking us, and had stolen my two best American hatchets on the way, so I immediately turned him out, and told him not to show himself again inside the fence that surrounded my tent.

The others received the same payment as if they had not participated in any deception; for I thought it better not to break the promise of reward I made with them before leaving, notwithstanding they had not fulfilled their contract.

CHAPTER X.

CANOE-COASTING.—SOME EFFECTS OF THE CLIMATE.—ANOTHER EXCURSION TO THE RIVER LAROKI.

ON the 30th of November I visited by boat, accompanied by Hargrave, two villages situated on the sea-coast south-east of Anuapata—Papakori, seven miles, and Pari, nine miles distant. The former contains a population of two hundred, in thirty houses, and the latter is double in population and size. Being Motu villages, they are built in the ordinary manner, upon piles driven into the beach, presenting a somewhat tumble-down and unsubstantial appearance. The Koitapu village of Patsiri stands upon a hill four hundred feet high, behind Papakori, containing one hundred and fifty inhabitants. Papakori is shaded by a grove of cocoa-nut-trees, and we were able to purchase some of the fruit with our tobacco. Both villages were comparatively deserted, many of the inhabitants having gone on the trading voyage to Ilema, as the country north-east of the Gulf of Papua is called.

They received us in a friendly manner—not with the same hospitality shown by the Koiani, but for this they have not really the means. Several large banana plantations exist immediately behind Pari, but bear very little fruit, and all we were able to secure were a few unripe

bunches in exchange for red beads. They were much cheaper than at Anuapata, not, however, owing to food being more plentiful, but because beads were scarcer. It becomes a struggle for existence to procure the requisites for sustaining life in this part of the peninsula; and hence it is a matter of necessity for all to store up everything they can accumulate, to exchange for sago on their trading voyages to Ilema, and for cocoanuts and other vegetables when they go to Kirapuno, the country lying south of the Motu, the chief trading village of which is Hula. The Hula natives are great fishers with nets, which are exceedingly well made, and are superior even to those used by the Motu tribe. The string of which the nets and bags are made is woven from the leaves of a fibrous plant, called *sibi* by the natives, and in texture and strength compares favorably with any of European manufacture. A wooden spear, or *karaut*, resembling a besom, is also sometimes used in fishing. In Pari a few of the women were busy making earthenware pots, this art being confined to the Motu natives. Birds were not very plentiful there, excepting coots and spur-winged plovers, which were very tame and easy to shoot.

We then visited the small island of Manupata (named Locol Island by Captain Moresby), situated about two miles from Pari. It is uninhabited, and possesses no fresh-water springs or supply of water from any source. The highest point is about two hundred feet above the sea; the cliffs on the shore rise perpendicularly from a coral and stony beach, and the slopes are covered with coarse grass and a few gum-trees. A bay of deep water lies to the north-west, offering good shelter from the south-east monsoon. We climbed to the highest point, and as I gazed upon the outlines of the noble mountains that rose on the main-land in all their grandeur, peak behind peak stretching far away to the distant horizon, my mind was lost with admiration, awe, wonder, and praise at the works of the Almighty.

But to the traveller, intent on exploring these unknown heights, they wear a most formidable aspect.

Before leaving Manupata—signifying the "land of birds"—we shot some white and slate-colored herons and golden snipe. A light south-east breeze usually springs up at this season (the end of November) about noon; the early mornings are calm, or ushered in by a land-breeze. We soon rounded Era (Paga Point), and by sunset found ourselves in Anuapata harbor. The evenings now frequently brought thunder and lightning, the flashes forked and brilliant, and the peals of thunder reverberating among the more distant and lofty mountains. At such times rain usually fell for a few minutes, and then rapidly passed away. We therefore made a small trench round our tent to keep the inner ground dry; but the canvas was not quite water-proof, which made things rather uncomfortable inside for the time being. It not unfrequently rained inland when fine along the coast.

The natives informed us that this year (1875) had, on the whole, been an exceptionally fine one; but the climate is always very equable. I was enabled before leaving to make out, with the assistance of the missionary, a table of the heat, rainfall, and prevailing winds at Anuapata, from the 1st of January to the 31st of December of the present year, which I herewith give:

	HEAT.		Inches of Rain-fall.	Prevailing Winds.
	Average Temperature at 9 o'clock in Morning.	Minimum Night Temperature.		
January....	89° 63'	73° 95'	2.66	Light variable, gen'ly N.W.
February....	90 43	73 73	4.68	Light N.W., often W.
March.....	89 4	72 6	2.76	N.W., often W.
April.....	87 7	73 7	8.56	Variable N.W. & S.E.
May.....	87 7	72 2	2.30	S.E., sometimes N.W.
June.....	85 5	74 5	2.30	S.E., fresh.
July.....	83 4	73 9	0.35	S.E., strong.
August.....	83 3	74 2	1.30	S.E., very strong.
September..	83 4	73 3	2.30	S.E., strong.
October.....	84 8	75 3	1.25	S.E., light; often N.W.
November..	89 8	74 5	0.23	Light variable, N.E. & S.W.
December...	90 1	74 4	5.85	
Entire rainfall during the year.....			34.44	

From this it will be seen that the most rainy months are from December to April (inclusive), and the finest from May to November (inclusive). The average morning temperature for the year was 86° 71', and night temperature 73° 85'.

Notwithstanding the equability of the climate, it is not a healthy one. Among the Rarotonga and Savage Island native teachers and their wives, numbering thirty-four, of whom twenty-two had been located on the east coast of the Gulf of Papua only one year, and the remainder two years and a half, no less than seventeen deaths had already occurred, nine of which took place between December, 1874, and November, 1875, from fever and ague. The deaths among the teachers to the west of the Gulf of Papua, called the western branch of the New Guinea Mission, were as nearly as possible in the same proportion. Nor were attacks of intermittent fever confined to the native teachers, for it soon invaded our camp, and with more or less severity affected each member of my small party.

We were not long in discovering how exceedingly difficult it is for sores to heal in this climate. My walk to the Laroki occasioned two small blisters, which in another climate would have healed in a day or two, but here they festered and became so much inflamed that it was not without pain I walked to Ipi-kari a month afterward. During that walk a small thorn ran into my hand, and caused it to fester so much that it had to be bandaged for a week. Once, while bathing in the sea, I hit my leg against a rock and cut it slightly; and it festered and became inflamed all round, and so painful that I could scarcely stand upon it for a long time after. We all had small festers in many parts of our legs, where the barbed prickles of the grass had pierced through our trousers and penetrated the flesh. The least scratch or sore of any kind turned in every case into a nasty fester, which the flies irritated and did their best, in addition to the climate, to prevent healing.

One day I walked to the summit of Mount Tapaharti, accompanied only by Boi, the chief, who acted as guide to the Laroki. The day was magnificently clear, and the Owen Stanley range stood out in the far distance in all its grandeur of outline. Owing to the extreme clearness of the atmosphere, I was enabled to discern many ranges of mountains that had escaped observation on previous occasions. Laying a sheet of foolscap on the ground, and placing a pebble toward one edge of it, I said, "This is Anuapata." Boi looked puzzled, but, after further explanations by signs and broken Motu, he understood that the pebble represented his own village, and the sheet of paper the country around. I repeated the names of a few of the coast villages to the north-west, laying down a pebble to represent each village till I came to Laval (Yule Island), requesting Boi to tell me any others he knew of farther in the interior. He then proceeded to place several more pebbles upon the paper with apparent anxiety as to their right position, the name of each being written down at the same time. At last, after some persuasion on my part and thought on his, my map was completed. However, when I cross-examined him as to the direction in which the villages lay, and found he pointed in totally different directions from those he had marked, saying that they were *tautau*—"a long way off"—I confessed that my map was a failure. It is literally impossible to obtain accurate information from the natives, especially when you know but little of their language.

A second excursion to the Laroki, where we spent a few days without seeing a single native, proved very successful, as we shot some entirely new birds. The vicinity of that river proved an excellent collecting ground. Though only a few miles from the Koiahi stream, yet its natural productions differed remarkably. Many birds appeared common near the banks of the Koiahi that we could not find in the neighborhood of the Laroki, though the country close to the latter had by far the greater variety. The various noises that disturbed the night air are indescribable. What we supposed to be alligators crashed the withered branches in the adjoining swamp

with their enormous weight, and bellowed like bulls. Flying foxes continually flapped their wings among the trees, turkeys rustled about ere dawn of day, jackasses laughed with all their might, ducks quacked, geese cackled, and a hundred other birds made the atmosphere vocal with sound. The tracks of the cassowary, which, so far as we yet know, is the largest land animal of New Guinea, were met with in more than one place. Some of the birds may be here enumerated; among these many are beautiful, while on account of their comparative rarity all are highly prized. These are the cassowary, crowned pigeon, fruit pigeons (four species), doves (several species), kingfishers (four species), bower-bird (two species), parrots (several species), brush-hen, cuckoo-pheasant, metallic starling, fly-catchers (several species), small black-and-white wrens, turkeys, and ducks, etc. We saw a couple of crowned pigeons (*Goura coronatus*), beautiful lavender-colored birds, two feet six inches in height, with magnificent crests most delicately pencilled; but though we wounded one it escaped across the river, much to our disappointment. In returning to our camp at Anupata we were caught in a storm, by which several specimens were irretrievably injured.

CHAPTER XI.

FINAL JOURNEY INLAND.—SWIMMING A RIVER. — LUXURIANT VEGETATION. — MEET WITH BIRDS-OF-PARADISE. — CAMP IN THE INTERIOR. — SHOOTING KANGAROOS. — MOSQUITOES.—ARRIVAL OF H.M.S. "CONFLICT."

It was now time for a final attempt to penetrate into the interior, but I had entirely given up my idea of crossing the peninsula. The inadequate means at our disposal for the carriage of provisions and other necessities, combined with the utter impossibility of obtaining sufficient or reliable men, rendered it useless to entertain the faintest hope. Our most sanguine ideas contemplated only the possibility of exploring as far as the great Owen Stanley range, which runs along the centre of the peninsula.

I fixed upon the 7th of December for starting, and long before it was light the three Koitapu youths and one Koitapu man who had engaged to accompany us to Munikaira made their appearance at the door of my tent. Although this number was insufficient for the carriage of supplies, yet I felt fortunate in procuring even these, as no Motu natives could be induced to go. The youths carried about fifteen pounds each, and the man half as much again, while my party, including myself, each carried from twenty to thirty pounds, making a total weight of about one and a half hundred-weight. Two ordinary Chinese coolies could have undertaken the whole load; yet the natives appeared to think their burden great, and we found ours quite as much as we could carry in such an overpowering heat. I was glad on some accounts to have Koitapu people with me instead of Motu, as they are on better terms with the inland tribe, and their language more nearly resembles that of the Koiari. Indeed, many words are the same, but the Motu language is almost entirely distinct. Koiari and Koitapu may be called separate dialects of one language, but Koiari and Motu are distinct tongues.

The chief of Baruni (the Koitapu village near Anupata) had promised to meet me with more men, but they preferred remaining at home, I suppose, for we saw nothing of them.

We arrived at the River Laroki at a point four miles higher than that we had previously visited. It was here between thirty and forty yards wide. Its source is in the high mountains to the north, and it is considerably enlarged in its course by streams from Mount Vutura and Mount Variata, between which it flows.

It now became a question which was our best method of crossing the rapid current. We speedily constructed a rough raft, and sending a couple of men to keep it from capsizing, and others to pull it along with a rope, we succeeded, after a few journeys to and fro, in getting our baggage, including the clothes we were wearing, in safety to the opposite shore. We then plunged into the

river, a little higher up, and swam across safely, after landing midway on a small island, toward which we were washed by the force of the current. The natives, meanwhile, set up an unearthly yell, in order, as we discovered after we landed, to frighten the alligators away; but we doubted if the noise had not rather an opposite tendency. We had crossed over into the Koiari country, and following the windings of the river for some distance through thick trees, and then emerging on to a fertile plain, in another hour we entered the village of Momili. It consists of six houses, built on poles, as in the other villages, all facing a common centre, in which a platform is erected. The inhabitants had forsaken it for a time, on account of the scarcity of food, and had gone farther inland: we therefore took possession, and made use of the houses for sleeping under. We preferred doing this to sleeping inside, as the floors are so uneven. Close to us was a swift-running rivulet, which I named the Vutura, from its rising north of the Vutura chain. It flows into the Loroki, and after heavy rains must be much swollen, as some immense trees, evidently washed down by the current, testified. Veins of white quartz are discernible among the variety of rocks and stones that compose its bed.

On the other side of this rivulet was a plantation of banana-trees and sugar-cane, about six acres in extent, neatly fenced round to prevent the encroachment of wild pigs and kangaroo; this is a common precaution. The bananas had all been gathered. Before they ripen, the bunches are usually tied carefully in green leaves, to keep off birds and insects, and also to enable the fruit to come to perfection more quickly, for the banana appears to "love darkness rather than light," and ripens more readily in the dark. Tame pigs are kept by a few of the natives, and some are fine and fat. The young pig is longitudinally striped with yellow, brown, and black, every other stripe being black; but as it grows these colors blend into one, until the animal assumes a dark-brown appearance. The head is much longer than that of most species, but the bristles with which the top of its body is covered are not so long or wiry as those on a Russian pig, which more resemble a hedgehog's.

The most striking object in the landscape around Momili is Mount Vutura, three miles off; but the clearness of the atmosphere makes it appear nearer. It is a pagoda-shaped mountain, forming the south-west point of the range, and rising to a height of about twelve hundred feet, the lower part being clothed with vegetation. Upon the summit is a table-land covered with *Eucalypti* and other trees. The Vutura range may be about eight or ten miles in length, and forms an amphitheatre of hills averaging one thousand feet in height.

Early the following morning we left Momili, and proceeded toward Mount Vutura along the bed of a rapid mountain stream, whose slippery and water-worn rocks made it anything but easy travelling. A steep ascent of one thousand feet brought us to the village of Keninimu, after a five hours' march, notwithstanding the distance from Momili was so short. It was one of the most fatiguing walks I ever had, and we were heartily glad to remain the night at the village. It contains ten houses, but on our approach some of the women fled, and the men seemed alarmed. The chief was ill with an abscess on his foot, so I went to see him, and made him the usual presents of beads, tobacco, turkey-red cloth, a knife, and looking-glass; in return for which he sent me some cooked yams and bananas. The women soon returned, but we saw them stowing away several bags of vegetables, fearing we should steal them. We were surprised to find cucumbers growing here, which were delicious eating, though very small—only about nine inches long. A small wild melon, scarcely larger than a gooseberry, as well as the ordinary watermelon, is found in the plantations, though not abundantly. Laying in the sun, and carefully wrapped in leaves, as if placed to dry, we remarked a fruit that none of us remembered having seen before. It was long and narrow, like Indian-corn, sixteen inches long by five wide at one end, and

only half that diameter at the other. Small sex-agonal pips, of a brilliant red, nearly an inch long, coated the internal cone. It weighed about five pounds, and the juice stained everything it came in contact with an indelible dye of pure vermilion. We understood that the natives eat this fruit, but in what manner they cook it (if at all) I cannot say, as this was the only time we saw it. It was probably the fruit of some palm. The refuse of sugar-cane, ejected from the mouth after chewing, covered the ground, plainly showing we were in a land where it is plentiful, and that it constitutes an important article of diet among the mountain tribes. Indeed, the character of the country now became greatly altered. The open forests of gum-trees suddenly ceased, and the rock-strewn hills give place to mountains richly clothed with vegetation, consisting of lofty trees and dense tangled scrub, through which, excepting by track, it is impossible to penetrate. Ferns, crotons, creepers, and several species of palms decorate these untrodden recesses. Owing to the frequent rains that occur among these inland mountains the soil is extremely fertile, so that the hills as well as the valleys are capable of culture.

Here the bird-of-paradise, which we had not met with nearer the coast, made its appearance. It loves tall trees and luxuriant undergrowth. We shot one the evening of our arrival, which proved to be the *Paradisaea raggiana*, the same bird I found so common one hundred miles up the Baxter River. They were then, in September, in full plumage, but now, unfortunately, had lost their magnificent side plumes, which are renewed every spring, and add so vastly to their beauty.

It may seem strange, when we consider how often birds-of-paradise of the commoner kind are seen in shop-windows, yet I believe it is a fact that the one I shot on the Baxter was the first that had ever been shot by any Englishman, excepting Alfred R. Wallace.* That enterprising traveller stayed some months in the neighborhood of Dorey, to the north-west of New Guinea, where birds-of-paradise chiefly abound, and where he was fortunate enough to find many different species; though the *Paradisaea raggiana* was not among them.

The next morning (December 9th) we left Keninimu, and wended our way along the top of a mountain ridge to the villages of Matogorogoro and Farunumo.

The total distance of our journey from the sea had been about twenty-five miles, in a north-easterly direction; but such a *terra incognita* is New Guinea that even this distance was greater than any previously accomplished on foot. As the men who had come with me so far were bent upon returning with all possible haste, and as from none of these villages was I able to procure carriers to take their places, we were reluctantly compelled to erect our camp in the neighborhood, half-way between Matogorogoro and Farunumo, which are a mile apart. If it had been possible we should have pushed on by ourselves, but from the nature of the country and other causes this was simply impracticable. It would have been necessary to have taken our provisions, besides camp equipage, and my two collectors were not strong enough to carry much, so that Hargrave, who was full of energy, and a veritable Hercules, had been obliged to relieve them.

An enthusiastic traveller can easily sympathize with me as I stood on that Farunumo range, gazing eagerly toward the great Mount Owen Stanley, and lamenting my ineffectual efforts to reach it. Mountain behind mountain arose, clad with interminable forests, contrasting strikingly with the barren and parched-up appearance of the country toward the coast. Truly we had entered the paradise of the peninsula, a land requiring only the cultivator to make it "flow with milk and honey," but we got no farther.

Matogorogoro contains six houses, and Farunumo twelve, and our reception at both villages was exceedingly friendly, as it had been elsewhere. The ridge upon which they are situated comes to so narrow an edge that the poles sup-

* Author of "The Malay Archipelago."

porting the back of the houses are driven into the hill-side. We saw in each of these villages houses built in high trees as refuges from Vata, their evil spirit, like those we had previously noticed, and Fannumo contained as many as three. Koawagira, the chief of this village, whose head was decked out with cassowary feathers, and whose face had been freshly blackened for the occasion, nearly blocked up the narrow thoroughfare with his huge body as we entered. He was a fine, strapping man, though, like most others, short of stature; but his chest was very fully developed, and the muscles stood out in every part of his body, like an English smithy's, for

"The muscles of his brawny arms
Were strong as iron bands."

We were not unexpected, as some of his people had seen us in Keninimu, and had conveyed the intelligence of our arrival, and our intention to visit them. About twenty natives stood near Koawagira, most of whom carried finely carved spears, very superior in make to those used by the Motu tribe at Port Moresby. Other natives stood or sat on the ground, in front of their residences, eying us at a respectful distance, with no little astonishment. I found Koawagira a most jovially disposed person, vivacious, energetic, merry, and full of expression in his talk. You might almost make out what he was saying by his gesticulations, the different expressions his face assumed, and I could read his feelings at the moment of meeting us. They were not unmingled with some doubt about our intentions, as the shortness of his breath while speaking, and a certain nervous movement of his lips, clearly denoted; but on my making him the usual presents, his happy nature gained the victory over his fears.

I shall never forget with what glee he smacked his naked posterior with his right hand, as he saw his black face reflected in a looking-glass for the first time in his life. It was a most comical scene to witness. This peculiar bodily movement is a sign of joy, and an expressive one when accompanied by an exclamation and a burst of laughter. The glass was handed round to the others, who followed his example. Those who had been watching our movements from a distance, now began to cluster round us to see what was taking place, and to look at our white skins, which they seemed to think were black ones whitened over. On tucking up our trousers and opening our shirts to convince them we were not painted, a noise arose, resembling the sound of distant artillery. It was the outburst of their joy and admiration, indicated in the peculiar fashion above described. They all seemed merry and very demonstrative, laughing and talking as though life brought no cares upon them. "And yet," thought I, "these jovial fellows, who seem happy as a sunny day, have no religion, are untaught, uncivilized; but into what town in any Christian country could I go and find the same feeling of content pervading it?" This is an enigma difficult of solution, unless, indeed, the explanation may be summed up in one sentence, the love of money and intoxicating drinks which unhappily characterizes civilized nations.

Shortly after our arrival, Urubiai, the chief of a village called Gokoroto, came to visit us. He was accompanied by several of his people, and in appearance was so much like Koawagira that for some time I was under the impression that it was he to whom I was endeavoring to make myself understood. Presently, however, Koawagira himself appeared again, bringing with him several more people, and on discovering my error I made Urubiai the usual present, and the expressive manifestations of joy we had witnessed a short time before were again indulged in.

My collectors had gone out shooting, so that Hargrave and myself were left alone to look after our visitors, who, in consequence of additions to their number from other villages, must have amounted to nearly a hundred.

Among Koawagira's followers were a couple of women bringing a return present from him, which they carried in net-bags, hung from the

top of their heads. For curiosity's sake I will enumerate the articles of which the present consisted, namely, thirty sticks of sugar-cane cut into lengths of about three feet (which would have made one stick the length of a factory chimney), ten yams, ten taros, ten sweet-potatoes, and one bunch of bananas. This was a most acceptable gift. Nor was it all the native supply our tent could boast of; for, seeing that the women who carried them received a few beads for their trouble, others followed their example in such haste that there was soon no room left to stow away any more. The chiefs and some of their friends clustered beneath the tent, filling it to overflowing, and making it insufferably hot, while the rest squatted on the ground in front, or stood looking on farther back. They were much more orderly than the same number of Europeans would probably have been under like circumstances, and respected our property more than the Motu. Indeed, when the shades of night drew nigh, and we were once more quiet, not a single article was missing. I do not, however, say with certainty that they are an honest people, although I did not find them otherwise; it might be the fear of an unknown race, supposed superior to their own, that restrained them. It is well for white people to show their power among an untutored race, though fire, bloodshed, and the sword should never be resorted to unless in extreme cases.

Acting on this principle, I took the first favorable opportunity to show them, innocently, the use of fire-arms. Koawagira was sitting next me, and it was with some difficulty that he was persuaded to keep his seat while my revolver was fired off. The decayed trunk of a tree, about twenty yards off, served as a target, and at this I fired with as much rapidity as possible. On looking at him he appeared exceedingly frightened, and took hold of my right arm with both his hands, casting his eyes aloft. The words *main, main*—"peace" or "friend"—brought him to himself again, so I fired off my Martini rifle at some birds that happened just then to settle in a tall tree a quarter of a mile away. The shot struck the branches, and I was looking for the improbable chance of a bird falling, when, on turning round, I found Koawagira and all his people were nowhere to be seen, but heard a voice at some distance crying out *mama-huta*, meaning "good-night." The ponderous chief was then discerned some distance up the hill on the road to his village, and, though evidently frightened, he returned my wave of the hand. Firing a gun now and then proved a polite way of getting rid of company when too frequent, and I indulged in it occasionally for that purpose.

We soon gained the confidence of those who visited our camp, and had then no difficulty in securing the services of a couple of men to accompany my collectors in their shooting excursions, while several youths were glad to collect beetles and other insects in the neighborhood.

The features of the Koiari differ considerably in individuals, but the color of the skin is more uniform than among the coast tribes, and is as dark as the darkest among the Motu, and of a rich chocolate color. Some have aquiline, and some flatter noses. In a few the eyes are slightly Mongolian, like those of the Siamese. Their faces are generally elongated, with prominent cheek-bones, high foreheads, black and frizzy hair, and large mouths. Their lips are not so coarse as among the dark Papuan, and their chins are finely shaped; many among the elder men wear short curly beards, mustaches, and whiskers. The teeth of the men are discolored by chewing betel-nut, or *fara*—a habit peculiar to the Malays. Two men I saw here differed from any we saw in the peninsula in the mode of dressing their hair; the hair of one was matted like a mop, similar in style to that of the Kulkaliga race who inhabit the islands of Torres Straits, and that of the other was worn in a series of small tufts, covering the head.

We were at some little trouble in taking the measurement of half a dozen men and women, who could not understand what we were about. The average height of the men was five feet

three inches, and of the women four feet nine and a half inches; the Koiapu, who most approach them in manners and general appearance, are about two inches shorter; the Motu one inch taller, and the Illema two and a half inches taller. The girth round the men's chest averaged three feet among the Koiari, and two feet nine inches among the Motu.

Some of the ladies visiting my camp here wore tight-fitting vests of net-work, in addition to the ordinary fringe girdle; otherwise their costume differed little from that of the coast tribes. The difference in climate may render this addition to their attire a luxury. The head-cloth, or *veribota*, worn by all Koiapu men, covering the back of the hair, and bound round by a head-lace of dogs' or kangaroos' teeth, is likewise used by the Koiari, but is less common among them. I have offered hatchets—which to them are more valuable than gold—in exchange for necklaces made of dogs' teeth, but was quite unable to purchase any. I tried to procure one from a Koiapu chief, but he said "the snakes would bite his legs if he parted with it," and nothing could induce him to give it up. They are all very superstitious, and credulous to a degree. Several of the older people had gray hair, and I noticed some of the babies and small fry had their heads shaved, with the exception of a single lock, like the Hindoos. The construction of their language, and the character and looks of the people, so resemble those of Eastern Polynesia, that I am induced to believe the inhabitants of the south-east portion of New Guinea have, in some far distant time, made their way thither from the eastern islands of the Pacific.

Our camp continued to be the centre of attraction in the district, and new faces appeared on the scene every day, scanning us with much curiosity. Many were newly blackened, for the sake of beautifying their complexions, with a preparation more effective than Madame Rachel's "beautiful forever" mixture; and others, who were in mourning, had smeared their faces with white ashes, giving them a somewhat ghastly and sea-sick appearance. Thus, although not wearing sackcloth and ashes, in accordance with Scripture customs, they practise half the Jewish method by putting on the latter—a practice that obtains also with the islanders of Torres Straits, though not with the Motu and other coast tribes. A string of beads, to which various shells are attached, called a *musinusi*, constitutes a favorite forehead ornament of the Koiari. Beautiful variegated crotons are not uncommonly to be seen stuck in their plaited grass armlets, or about the head, and ripe chilies, or *muara*, of remarkably fine growth, are formed into a wreath to decorate the hair. A small bag of fine net-work is generally worn by the men, containing their lime (*udi*), betel (*fara*), a pungent leaf (*kari*), and a long berry slightly rough on the exterior (*uroto*), possessing a peculiarly spicy and aromatic flavor.

The year was too far advanced for comfortable travelling in the interior (if travelling in such a country can ever be called comfortable), for heavy rain fell daily at sunset, accompanied by vivid forked lightning and terrific peals of thunder, and continued more or less until the early morning. December and the four following months are some of the most rainy in the whole year, and the fall is greater inland than at the coast. As the morning sun rises, the moisture of the land is converted into vapor, and hangs over the valleys, causing a moist heat, which is very relaxing to the system, so that the early hours of the day, from eight to ten o'clock, are felt as oppressively hot; but as the sun attains its meridian, the clouds are lifted slowly from the valleys and disperse, and the heat does not appear so great, although the thermometer may indicate a higher temperature. It was one of our every-day enjoyments to witness this gradual change from our camp near Matogorogoro, at an elevation of one thousand feet. We always welcomed the first gleam of the sun after the restless nights we too often spent. Mosquitoes, flying and creeping ants, earwigs, and blue-bottles, hatching live maggots on the rugs that covered us, rendered sound sleep a matter of impossibility with most of us. The view from our

camp was most extensive and picturesque, and one of solemn splendor. To the south-west was Mount Vutura, rising like the dome of some Eastern temple, the range, of which it forms part, lifting its peaks in a semicircle around us. Near us, a magnificent water-fall precipitated itself from the high cliffs in one leap of about three hundred feet into a deep gorge beneath. It was the only fall we had yet seen in the country. Those who know the Staubbach near Interlachen, in Switzerland, can form a good idea of this inland cascade, or *mariahu*, as the natives call it. There is another smaller fall half a mile east, and to the north rises Mount Owen Stanley in all its dignified and forbidding grandeur. The whole landscape between is a succession of mountains, valleys, and endless forests, which, when played upon by the light and shade of floating clouds, present a picture of striking beauty.

Mount Owen Stanley was so named after its discoverer, who saw it from his vessel, and its highest peak is computed to measure 13,205 feet, though it does not look so high, possibly owing to the clearness of the atmosphere. It has two distinct summits or peaks, joined together by a narrow and precipitous ridge. The more easterly of these is called *Bitoka*, and the other *Birika*. The lower part is covered with vegetation, but the upper is rocky, and broken into deep fissures, clefts, and chasms. We found white quartz everywhere, and it was especially abundant here. Taking into consideration the general similarity of flora and fauna to that of the continent of Australia, it may be reasonably surmised that the same minerals exist in both countries. Captain Moresby alludes to gold having been found in the neighborhood of Fairfax Harbor (Port Moresby) by one of his crew, but we saw no trace of the precious metal, and it is quite unknown to the natives, though it may, and probably does, exist among the high mountains. Some adventurers who were lately induced by false rumors to undertake an expedition to New Guinea in search of gold, have recently (1878) returned without any success.

So far as the soil and climate of the interior are concerned, they possess all the qualifications necessary to the successful cultivation of sugarcane, Indian-corn, tobacco, cotton, coffee, sago, and rice. Bananas, yams, taros, sweet-potatoes, cucumbers, water-melons, marrows, chilies, grow luxuriantly; while the bread-fruit, betel, mango, cotton, and nutmeg trees are indigenous. Pine-apples, oranges, grapes, and many other fruits and vegetables might be introduced with satisfactory results.

The nature of the country around our camp at Matogorogoro made it a difficult hunting-ground. The steepness of the mountain sides, the dense scrub, and the impossibility of following beaten tracks, however poor for such a purpose, rendered shooting-excursions both painful and tedious. We shot several of the same species of bird-of-paradise as we had found before, but they had all lost their side plumes. Paroquets of many descriptions were especially numerous, and flew rapidly across the valleys, generally settling suddenly on some edible tree. We obtained two or three shells of the *Helix*, almost the only land shells we saw. The largest was of a dark-brown purplish tint, streaked with five yellowish-brown serpentine rings. The smaller shell was of a light-brown color, so thin as to be translucent, and was marked with five spiral lines of a lighter shade. They are very scarce, however, and we saw none but the two or three brought us by the natives. They preferred being paid in red beads for whatever we purchased, but seemed also to appreciate twist tobacco. At first they could not understand what the white crystalline substance was they saw us eating with our vegetables, but on one of them tasting it a quantity of hands were eagerly stretched out for a small portion. With their salt is a real luxury, one they seldom enjoy, although the human system requires it. At distant intervals they journey down to the sea, where they drink so much salt-water that it makes them ill, and then return with bamboos full of the briny element for their wives and families.

During our few days' encampment near Matogorogoro I had ample opportunities of seeing

much of these peacefully disposed Koiari people, who were constantly about my tent. I have refrained from using the term "savages," as I am inclined to think they are by nature the reverse of savage. If, however, the unhappy time should ever come for the white man to treat them with cruelty and oppression, to kidnap or shoot them on the least provocation, as he has too often done in Australia, it is impossible to imagine the length to which their excitability of character might carry them. The hostility of several tribes in Australia toward us, and the consequent danger of travelling among them, is almost entirely caused by our own conduct in the first instance, and it is lamentable to think that even now the murder of a black fellow among them is considered rather in the light of a good riddance than as a crime. If a policy of peace and good-will had been adopted toward them instead, they would probably have been as well disposed toward us as are the natives of Java toward the Dutch. From what I saw on that island, I am convinced that there is no system so well fitted for the organization and development of a colony, as that so prosperously employed by the Dutch in their Eastern possessions.

Finding it still impossible, after nearly a week's stay in the interior, to procure natives to accompany us farther, and the nature of the country not being propitious for collecting purposes, we prepared for our return. For a knife, a thimbleful of beads, a stick of tobacco, and a looking-glass each, five natives offered to carry our luggage back to Momili. As we turned our backs upon our late camping-place, leaving behind us vast tracts of unexplored country, whose interminable forests had never re-echoed to a white man's voice, and the beauty of whose hidden recesses have still to be revealed, no wonder if my heart felt sorrowful.

On arriving at Keninimu the natives suddenly objected to go any farther, and ran back, after putting down their loads in haste, without even waiting for any payment; they knew very well that they were not entitled to any, as they had failed to fulfil their contract. We were, therefore, left in the lurch; nor was it before several hours had elapsed that we succeeded in obtaining five other men to take their place. The unreliable character of the natives has over and over again proved to me the impossibility of trusting them either as carriers or guides. My feet were so sore it was painful to walk; and both Broadbent and Petterd were weak from attacks of intermittent fever and ague.

On re-arriving at Momili we found the village just as we left it, and a bag of biscuits that had been placed in one of the houses, untouched. The men who had carried our baggage returned to their village immediately after they had fulfilled their obligation, so we were now left entirely by ourselves. We remained at Momili three days, but only one small party of natives was seen during that period. I approached them, holding up my arms, as I had seen the natives do on other occasions, to denote friendship, and they advanced toward me. They gave me a peace-offering of some betel-nut, which they carried in large quantities; and after receiving some biscuit in return, they went on their way.

Kangaroos were numerous among the long grass around the village, so that I had no difficulty in shooting a fine buck the morning after our arrival. The flesh is in taste something between venison and mutton, and the tail makes excellent soup, fully equal, if not superior, to ox-tail. The kangaroo, or *mikani*, afforded fine sport while we remained there, so that fresh meat was plentiful. Large flocks of white cockatoos cackled in the tall trees growing by the rivulet. I counted a hundred at once. Their plumes, particularly the yellow crest, are much prized by the natives to make into feather ornaments for the head. Parrots' and paroquets' feathers are used by them for the same purpose.

One day Hargrave remarked a bundle suspended from the floor of one of the houses, about eight feet from the ground. On climbing up to see what it contained, we found some human bones wrapped in roughly made matting. The joints had been dislocated after death, and the

body, arms, and legs, with the flesh still adhering to them, lay one upon the other within the basket. A quantity of maggots were clotted together in heaps about the decaying bones. The skull was not there, but we saw a second parcel, likewise suspended from the floor, containing a jawbone. Search was made for the skull, and one was eventually found beneath another empty house. The remains are usually buried in a grave made close to, or sometimes underneath, the house of the deceased.

Deliciously odoriferous, but small-leaved, lemon-scented verbenas grew profusely around us, filling the air with fragrance; but other things were not so agreeable. The mosquitoes were abominably troublesome, especially at night, rendering sleep without a proper net almost impossible. In spite of all, the general impression that mosquitoes are only found in tropical or very hot countries is a mistake. Neither in Persia, India, Burmah, Java, America, or any other country I have visited, have the numbers of these pestiferous insects exceeded *one-tenth* of what they did in travelling through Lapland (from the Arctic to the Gulf of Bothnia) during the summer months. As the sun did not set during that journey, there was perpetual day—one cause, I imagine, for the multitude of mosquitoes; and as I was travelling chiefly by water, no doubt I met with more than I should have done on land. I suffered terribly from them during that Lapland journey. On my right arm alone I once counted one hundred and thirty; two pairs of trousers were scarcely sufficient protection; and I was always compelled to wear a couple of veils round my head, made into a sort of bag. I never wish to visit that part of Lapland again in summer.

On leaving Momili, I thought it desirable to take sufficient provisions with us to last for several days. It had been raining heavily every night, and we feared lest the River Laroki might have risen so high as to render crossing impossible. As we had now no natives to help us, everything had to be carried by ourselves, and my collectors could carry scarcely anything besides themselves, so that we were forced to leave some of our camp appendages, and whatever provisions we could do without, for the benefit of the next fortunate natives who passed that way. Even then both Hargrave and myself were well-nigh overcome with the weight of our "swags," for the day was broiling hot, and there was but little shade.

It is no joke to shoulder from thirty to forty pounds' weight of luggage in such a climate for the first time in one's life, and I was heartily glad when we reached the river that evening. We were surprised to find the waters had risen but little, so we prepared at once to cross it. We soon found the little raft and rope, which had been hidden among the tall grass to await our return. Placing as much baggage as we could upon it, a couple of us swam across with the rope, having attached it first to the raft, and by pulling as hard as we could from the opposite bank we assisted the others who were in the water steadying it. The process had to be twice repeated, and after some little difficulty, owing to the rapidity of the current, we succeeded in getting everything safely over, excepting one pair of trousers that toppled off and floated away to Manumanu. They proved to be my own; but we fortunately had a spare pair of turkey-red pajamas among us, which I appropriated, or else I should have been compelled to adopt the costume of the country. We camped for the remainder of the day and that night upon a small mound on the river's banks, and arrived at Anupata the following afternoon, December 16th.

We were astonished to see a vessel anchored in the harbor, for so isolated is New Guinea, so apart from the civilized world, that few ships ever come within sight of its coast; and not one, excepting the little *Ellengowan* and H.M.S. *Basilisk*, had, so far as I know, ever been in this part before. It was quite an event. We soon learned it was H.M.S. *Conflict*, which had been ordered to make a détour on her way from Sydney to Port Darwin (North-western Australia), to inquire after our welfare and that of the missionary.

We were delighted to see her, and hoisted our flag directly we reached camp. In the evening I gave a salutation by sending up rockets and burning blue lights, which was duly acknowledged by the *Conflict*. The natives thoroughly enjoyed these illuminations, exclamations of admiration arising from all three villages with one accord. One rocket fell close to Hini the Tanapata chief's house, and was placed by him upon a species of hustings erected in front of his house. On inquiring why it was put there, I was given to understand that it was "a spirit from the skies," and was intended as a charm to prosper some forthcoming dances or *mavarus*.

The next morning, the three chiefs of Annapata and some natives went with me to the *Conflict*, anchored about a mile off, having been invited by the captain. Although only a small vessel, yet to the natives it appeared a leviathan. Everything was beautifully clean, and shone so brightly that the natives gazed in profound astonishment, not mingled with awe. The captain was very courteous, and offered to fire off one of the twelve-pound guns, to give the natives an idea of the white man's power. I was anxious for him to do this, so was pleased at his proposal, which I myself should have made as a stroke of policy, had he not done so.

We first, however, inspected the armory, and the natives seemed greatly struck by the number of guns and swords, placed in symmetrical order, without spot or blemish. Revolvers and pike-staffs were then exhibited, and admired; but some bright steel hatchets raised their enthusiasm to its highest pitch. We then went on deck again, when a blank cartridge was placed in a breach-loading cannon. I gave old Ila the string which communicated with the firing apparatus, and told him to give a sudden jerk. Immediately the gun boomed forth, and I scarcely knew which would have died first, they of terror or we of laughter. The lesson was a good one. It was with some difficulty that they were afterward induced to approach a Haly rocket, but finding they were still alive and unhurt, the chiefs at last ventured. The fuse was applied, and forth issued the fiery monster, leaving in its trail a line of black smoke. It fell into the harbor nearly a mile away, and the natives were terrified to see the water bubbling up, and smoke rising from the deep. Poor fellows, they very much preferred eating biscuits in the cabin to seeing any amount of such fireworks. Old Ila boasted of his feat in firing off the cannon ever afterward.

The opportunity for sending letters to Somerset was gladly embraced by all, and the following day the *Conflict* sailed away, and the excitement caused by her presence totally subsided.

CHAPTER XII.

RETURN OF TRADING CANOES.—NATIVE DANCES.—HABITS AND CHARACTERISTICS OF THE RACES.—A MATRIMONIAL SQUABBLE.

I THINK we were none of us sorry to enjoy a few days' rest in my camp at Annapata, although it was not such repose as if the situation had been more secluded.

We were in the neighborhood of thieves again, and had to keep a sharp lookout; for, do what we would, the natives could not be kept entirely from entering our tent. I lost my best American hatchet on the very day of our arrival, and never afterward found it, although I offered rewards for its restoration. My folding corkscrew, that had so narrowly escaped being walked off with by Hini, the Tanapata chief, again met with a fate which made me believe it was lost to me forever, but it was destined to turn up once more. I have an impression that my best friend, old Ila, took it away, in order that he might receive a reward for finding it.

Of course he assured me that some other person—a Koitapu man—stole it, and that he would go to his house and make him restore it. I fancy the old man was alarmed by my saying no more food or tobacco would be given to him until it was returned; so shortly after our conversation old Ila brought it back, and had, of course, a long tale to tell, of which I understood but little, and which was no doubt a tissue of falsehoods.

We now began to be visited by trading canoes—*lakatois*—from north and south. The first of these had come while we were absent in the interior, bringing cocoa-nuts from Maiva, as the main-land opposite to Laval (Yule Island) is called. The people there are taller and half a shade darker than the Motu, and have no hair on their faces, which are larger and somewhat coarser-looking. Their noses are long, slightly distended at the nostrils, and rounded at the apex. The forehead is straight and high, but not prominent. The cheek-bone is conspicuous, the mouth large, the lips fairly formed, the ears small, and the feet large and broad. The lobe of the ear is artificially elongated in several of the men, by wearing ear-tubes (not rings), as much as one and a quarter inches in diameter, made of a leaf plucked fresh from the tree, and folded up into a sort of funnel. They excel in fine net-work, and when in mourning wear three or four net collars, varying from one to three inches wide. Their teeth are discolored with betel-chewing, like the Koiari; but, although the tribes living both to the north and south of their country smoke, the Maiva natives had not learned to appreciate the use of tobacco.

The Motu have a very ridiculous tradition about the first introduction of tobacco into their land. They say that a woman living at Ilema, named Iva, expecting the birth of a child, about a century ago, was surprised to see no living thing, but some small seeds. She had them buried in the earth, when, to the surprise of herself and friends, they sent forth a plant, which was thought so extraordinary and so much admired that its leaves and flowers were used as charms. At first they supposed it to be nice to eat, but afterward they said, "We will not eat our children, but we will burn them, so that their spirits may mingle with others floating in space." The odor emitted was so agreeable, and the sensation of inhaling the fumes proved so pleasant, that they said, "No one shall know what we have found." The news of such a miraculous birth and discovery, however, could not long be kept secret, and the Motu natives, on one of their trading expeditions, succeeded in stealing a small quantity, which they brought to Annapata. They could not make it thrive satisfactorily, owing possibly to the poverty of the soil; but the Koiari procured some, and cultivated it successfully in the interior. As much, or as little, of this may be believed as the reader feels inclined, but it is pretty certain that tobacco was introduced here from Ilema.

On the 20th of December some of the trading canoes which had left five weeks previously for Ilema returned, while others had gone west as far as the Aird River. For some nights previous to their arrival there was much night-chanting in Tanapata; for though its inhabitants are less numerous than those of Annapata, they are, as we had before experienced, much more lively. A light land-breeze had sprung up in the early mornings for the last fortnight, which changed, an hour or two before mid-day, into a soft southwest sea-breeze. The night-chanting, or *hehoni*, was for the purpose of changing these winds into a favorable north-west wind, to aid the canoes on their return voyage. The chief part of their cargo consisted of sago palm, with the sago unextracted, and a smaller portion of pure sago already fit for use. The palm-stalk is triangular in shape, each side measuring about six inches wide, and containing in the centre a pulpy substance, which the natives either cut out, or, by means of pressure, squeeze, saturated with water, through a sieve. When dry, it looks like flour; the sago, in the form of globules, we are accustomed to see in England, is artificially prepared.

I was once invited to partake of some sago that had been cooked by old Ila's wife, so went to his domicile. I seated myself on the floor, and placing a banana-leaf before me as a plate, the lady of the house took a handful of the paste out of the boiling pot, and splashed it down for my meal. It was the first and last time I cared to taste native-made sago. A Persian uses the fingers of his right hand to carry food to his mouth, but these uncivilized natives use spoons

made of tortoise-shell and bone, showing a superior sense of cleanliness.

Canoes now arrived from Hula with cocoa-nuts, as well as others from Kapakapa and Kaili, all situated south of Port Moresby. It may seem strange that the Motu, living as they do on the sea-shore, should scarcely ever fish, and are even willing to purchase fish when occasion offers. The Hula people, on the contrary, who belong to the Kirapuno tribe, are most expert fishermen, using a well-made net for that purpose, and a fishing-spear, or *karaut*, resembling a besom.

Almost daily, while they remained here, they went fishing close to a reef outside the harbor, exchanging the fruits of their labor for earthenware vessels and red beads, that now constituted a considerable part of the Motu's wealth.

From three to four small beads would purchase a fish. With such an influx of visitors and food, fresh life animated the place, and plenty reigned around. It was a treat to taste again some ripe bananas, and to drink once more the milk of the cocoa-nut. The price of a cocoa-nut fell to only half a stick of tobacco. We paid the same for a good-sized vesselful of water, which had to be brought from the only water-hole in the locality, half a mile away. My old friend Boi, one of the Annapata chiefs, took Hargrave and me one day in his canoe to see the Hula boats that were tied to stakes driven into the ground behind his house. Including about twenty women, there must have been from sixty to eighty people on board. Cocoa-nuts were piled up in great heaps, and they were cooking fish. The odor that greeted our olfactory organs, therefore, was more strong than agreeable. I was much struck by the great difference between the physique of the Hula people and that of any we had previously seen. If they were a true sample of the Kirapuno, they are without doubt the most handsome tribe in the peninsula, if not in New Guinea. The little children's hair is of a light golden color, and that of the young men and women of a rich auburn; it grows much darker with age, so that an elderly man frequently appears to have black hair, but on closer examination it is generally found to retain a reddish tint. Among the Polynesians a preparation of lime is sometimes used to turn the hair yellow, and it is possible that the same means are here employed. The hair grows in ringlets or curling locks, which, combined with its color, the comparative fairness of their skin, their symmetrical features, and the fine proportions of their bodies, constitute them a people of great beauty. This, however, is only the case with young people and children. Some of the old hags were positively hideous, though as children they are pictures of loveliness. One native among the crowd on deck was as fair as any European, and with his flaxen hair one would never have supposed him to be a native of the tropics—similar freaks of nature occur now and then among the natives of the South Pacific Islands, and generally excite the admiration of their fellow-countrymen—he was an albino, and the only one I saw while in the country.

The only weapons the Hula men brought were sword-clubs, or *parus*, made of cocoa-nut wood, and long spears of the same material, jagged at one end. Crowds of people from the trading canoes in the harbor paid us daily visits at all hours, so that we never enjoyed any real repose. The Hula men wear a yellow-stained belt, instead of the plain uncolored one of the Motu, and suspend a shell from their beads by means of a lock of back-hair passed through a hole in the centre.

The Koiari and Koitapu wear shells suspended in the same way, but from several front locks, instead of one behind; a head-dress, made from the fur of the cuscus, is peculiar to them. The Ilema and Maiva may be distinguished by their finely netted collars and belts; the Ilema by their shell bracelets; the tattooing also differs among the various tribes. Indeed, each tribe seems to vary slightly in physique, or has some peculiar characteristic of its own in dress, manners, or usage.

Annapata proved the rendezvous of Northerners and Southerners, a regular metropolis, and a complete Babel; for no less than five distinct

languages, besides several dialects, were now spoken in the villages. The languages were Motu, Ilemā, Maiva, Koitapu, and Kirapuno; while the dialects were those of Kapatsi and Naro in the Maiva, and Kapakapa in the Motu, country. No Koiara had yet come down to the coast. In what other country can such a number of languages be found to exist in less than two hundred miles of coast-line?

Night dances were now regularly indulged in to welcome the arrival of so many strangers, and to celebrate the safe return of their own people. They always took place at Tanapata, five minutes' walk from Anupata. Among the Motu the unmarried of both sexes join in the dances, but among the Kirapuno only the men, married and single. They dance, therefore, in quite a different style, that of the latter being particularly graceful and pleasing. Moonlight nights are preferred, as no fire or other light is kept burning. Dancing takes place on the beach in front of the chief's house, commencing in the cool of the evening, and sometimes continuing until dawn, and it is conducted with order and propriety. Just before the sun disappeared behind the western hills the drums would commence their monotonous beating of tum-a-tum-tum, tum-a-tum-tum, informing us that the amusement had begun. Several times I went down to see them, and like

"Childe Harold, at a little distance stood,
And view'd, but not displeased, the revelrie,
Nor hated harmless mirth, however rude;
In sooth-it was no vulgar sight to see
Their barbarous, yet their not indecent, glee;
And as the moon along their faces gleam'd,
Their gestures nimble, dark eyes flashing free,
The long wild plumes that from their head-dress
stream'd,
Their drums kept time, while they half sung, half
scream'd."

A clear space about twenty yards long by ten wide is left for those who take part in the performance, while the youngsters seat themselves around it, and the grown-up people stand behind. The chief with some of his friends look on from the veranda of his house. Two lines are formed facing one another, and if composed of both sexes, as among the Motu, the men and women stand alternately. Each man carries a drum in his left hand, which he beats with his right, and all are dressed up as grandly as possible for the occasion. The women put on their best-colored fringe aprons, which rise and fall gracefully with the movements of the dance, showing their figures to advantage. An oscillation of the lower part of the body, resembling a "Grecian bend," has a somewhat comical appearance, the hind part being thrown back and the hands placed on their stomachs, while their sides are jammed between the next partners. The men, meanwhile, keep their legs and bodies constantly in motion by raising their feet in turns and swinging their lower extremities to and fro, thus imparting a uniform swaying movement along the whole line. The bottom couple then come to the top, the next follow in turn, and when all have resumed their places they pass round a bamboo-pipe, from which each draws a few puffs of smoke, and after a short rest the dance is renewed with trifling alterations.

The Hula (Kirapuno) dances are charmingly graceful and pleasing, surpassing in this respect many more civilized ones, and somewhat resemble a ballet. I will describe one I saw which took place during an interval, when the dancers just referred to were resting from their exertions. Four men stood at one end of the open space, each beating his drum and bending his knees to the sound about sixty times a minute, chanting meanwhile. At the opposite end four other dancers formed in Indian-file, and at a given signal came dancing toward their *vis-à-vis* with sliding movements, bending their lithe bodies in easy attitudes. Their chief dancer led the way, holding a drum high in the air, profusely decorated with hollow black seeds the size and shape of chestnuts, which gave out a clacking sound by knocking against one another. In his mouth he carried a charm, or *kotsiva*, to give grace to his actions, made of a split bamboo, sixteen inches long, burnt in various devices, and

decorated with feathers. The same charm accompanies them during war, to give strength and endurance; only at dances it is carried horizontally, and in war perpendicularly, in their mouths. The remaining three dancers followed their accomplished leader, swaying their drums from side to side or fantastically above their heads, accompanying the sound by their voices, to which the nimble movements of their limbs kept time. They stood for some moments face to face, going through various evolutions, and then rested for a minute, afterward returning to their first position, when the performance was repeated by the four opposite dancers.

The Motu have also a charm, which they use in dance and war, made of two rows of boars' tusks placed between a frame about twelve inches long, each row containing eleven sets of tusks, diminishing in size near the middle of the row, and having the convex side outward. During dances it is held by a piece of cloth which goes along the centre, and during fights it is suspended from the mouth by a piece at either end. For many nights these festivities were kept up, the dancers only retiring at dawn of day. Etiquette forbids married people among the Motu from taking part, except as observers, on these festive occasions; nevertheless, I have seen this rule sometimes infringed by the men, but they generally get a good rating from their wives as a punishment for their misconduct on returning home. Quite a scene of this description took place one day in front of our tent. The woman was rating her husband so soundly that crowds collected to see what was the matter, when he, becoming wroth, took up a pole to strike her. However, before the blow could be administered, Kuba, one of the chiefs, who happened to be present (as he was almost always begging), rushed out and stopped it. Before going to dance, some of the best-looking girls would come to ask for tobacco, *kuku*, and would commence a short dance of their own accord in order to obtain some; they danced so prettily that they generally gained their ends, for we loved to see their harmless mirth.

The faces of all who take part in the festivities are freshly painted, and there was a great run upon our yellow ochre and vermilion. Some painted their faces with black stripes, or colored them entirely black, to denote different degrees of mourning. Many of the men wear a wreath of bird-of-paradise plumes upon their head, as well as the gaudy feathers of less beautiful birds, such as the parrot and cockatoo; and the variegated leaves of the croton, the single hibiscus, and sweet-scented herbs frequently decorate the body. They also wear ornaments from the shell *Tridacna gigas*, resembling a pair of horns, passed through the septum of the nose. They are very vain, tightening or drawing in the waist to an extraordinary degree with a stiff bark belt, or *kava*, from two to three inches wide, fastened injuriously tight. The men do this like English ladies of the present day, and with the same view of attracting admiration, but to a much greater extreme, and in this respect the women here leave nature's charms alone. The girth of a boy I measured was only one foot nine inches round his waist, while his flesh two inches above and below bulged out to two feet four inches, quite disfiguring the shape of his body according to my ideas, though not to his own. This proportion, however, is somewhat exceptional, although the length to which even these uncivilized people will go to for the sake of appearing swells is astonishing. Armlets are worn quite as tight, and the pain that the women must undergo while being tattooed cannot be small, notwithstanding they assured me the contrary. White shell armlets, cut from the species *Turbinide* are much valued, and I remarked that those who possess only one wear it always on the left arm. A native in full dancing costume wears a bird-of-paradise head-dress, a belt of native cloth, with one end dangling; a quantity of shell as well as kangaroo and dogs'-tooth ornaments round his neck; some plaited bracelets and armlets, with crotons and flowers to adorn them, and carries a drum in his hand. These are generally dispensed with in ordinary times.

During the daytime the women of each village devoted themselves to making pottery in great quantities for the foreign canoes to take away, and some of the youngsters showed their skill in making little model canoes, very good imitations of the originals, which were quite the fashion for a time. With these the small fry might be seen amusing themselves in the water all day long, and holding Liliputian regattas. To hear their merry shouts did one's heart good; it was as much as to say, "I want no better land to live in. Where should I be so happy as splashing in the sunny waters with my little boat?" Other children have small bows and arrows to play with, whips that they are fond of cracking; and even the babies have a few sea-shells given them by their doting parents in order to keep them quiet. The women, in particular, have great affection for their children, and may frequently be seen swinging the baby backward and forward in a net-bag suspended from a beam beneath the veranda. At other times the babies are carried on their arms or in the above net-bag, or *kiapa*. The Motu men are employed chiefly in hunting wallabies, or *mikanis* (a small species of kangaroo), in digging and attending to the fencing of their plantations, in making twine from the fibre of the pandanus-leaf, and nets for various purposes; also in manufacturing body ornaments, in which they are assisted by the women and children, and last, but not least, in smoking.

They have a measure equalling nearly one fathom, called *dimun*, measured by the outstretched arms, as in Polynesia. Their year consists of thirteen months, calculated from the new moons; but it is not subdivided, excepting into half-years, named respectively after the north-west and south-east monsoons.

Each tree, shrub, flower, or particular kind of grass is distinctly named, as well as the winds and many of the stars. This alone shows some little advance toward civilization; and their inquisitiveness concerning any new thing they see or hear marks them as an intelligent race rather than otherwise. A custom universally respected prohibits a man from entering the house of a woman whose husband is absent—rather a remarkable point of propriety for a savage.

With regard to the population of the peninsula, it is of course impossible for me to give more than a very rough estimate of the number it contains. Supposing the villages on the coast to average four miles apart (the distance between them varies from one village in thirty miles to three villages in half a mile), and each to contain sixty houses, and six inhabitants to each house, with a coast-line of eight hundred miles, not allowing for numerous minor indentations, it would give a coast population of 72,000. The inland villages are thinly scattered, and not so large. The largest we have seen did not contain more than fifteen houses. Dividing the Koiari country into sections of ten miles square, we might find ten villages in each containing the same number of houses, which, with an average of six inhabitants per house, would give us a population of 600 to 100 square miles; or, taking the area of the peninsula at 21,000 square miles, would give an inland population of 126,000. If this be added to the sea-coast population, it will make the total population of the peninsula 198,000. On the hypothesis that the whole of New Guinea, covering an area of some 250,000 square miles, is peopled in the same proportion (though the parts explored are so far proved more thinly populated), we should find this, the largest island in the world, to contain not quite 2,500,000 of inhabitants.

During our stay here we were brought into contact with no less than six tribes. It is impossible to say how many the peninsula contains; but I will give an idea of the position of the six principal tribes we met, commencing with the most northerly:

1. The Ilemā tribe, inhabiting the coast from Muro, a little north of Freshwater Bay, as far as Oiabu, situated about ten miles above Yule Island (Laval), distance fifty miles.

2. The Maiva tribe, inhabiting the coast from Oiabu to Kapatsi, situated to the west of the

Manumanu (Usborne) River, distance forty-five miles.

3. The Motu tribe, whose territory extends along the coast from Kapatsi to Kapakapa (close to Round Head), distance sixty miles.

4. The Koitapu tribe, living on eminences overlooking the sea, and occupying the country of the Motu.

5. The Kirapuno tribe, extending along the sea-coast from Kapakapa to Muru, distance forty miles.

6. The mountain tribe, called Koiari by the Motu, and Kuni by the Kirapuno, occupying a large area in the interior, whose limits are uncertain.

North-west of and adjoining Ilemas is the Namau-Papuan tribe spoken of by the Motu as cannibals.

The Ilemas combine several characteristics of the light and dark races, and are of a color between the two. They are not cannibals like the dark Papuans, but they eat the flesh of dogs and rats, unlike the lighter tribes, who hold such food in contempt. As among the Papuans, polygamy is not uncommon. Like them, too, their principal weapon is the bow and arrow, but it is inferior in workmanship. Indeed, the more docile of the two races inhabiting this great island is almost ignorant of figure-carving; while the more savage race possesses great natural talent for carving, coloring, and imitation. The drum of the Papuans is a real work of art, compared with which that of the Motus is very poor and insignificant. The shields used by the Ilemas have a nick cut in the top for the left arm to pass through while holding the bow. They are oval, made of wood about two feet six inches long and one foot six inches wide, profusely ornamented with red, white, and black devices, and are attached to the shoulder by a sling.

The Ilemas stone club is peculiar to the tribe. The head resembles a large blackberry, six inches long, and is fastened firmly to a wooden handle. That used by the Koiari is a more deadly-looking weapon, and in every sense more striking. The stone head in this is cut, or rather ground with immense labor, into four long, sharp points, with two small points between each long one. A blow dealt with comparatively small force by this star-shaped instrument is sufficient to cause severe suffering, if not immediate death. Another plainer form is also used.

Before the *lakatois* left the harbor, some of the Koiari from the neighborhood of Ipikari came down to purchase sago from the Ilemas. They had intended to remain some days, but finding the Hula people, with whom they are on bad terms, also here, they returned early the following morning for fear of being attacked by their enemies. With the exception of the hostility between the inhabitants of Hula (the Kirapuno) and the Koiaris or Koitapus, I know of no actual enmity between any of the tribes, although none possess a perfect feeling of security in the country of another, for what reason I am unable to say, as, judging from those cases which came under my own observation, they always appear to be hospitably treated. It is certain that the inland tribe is regarded even by the Motu with superstitious dread, notwithstanding that peace was formally made between them a couple of years previously.

Each village has its own great chief, or *loiapata*, and one minor chief to, on an average, every hundred inhabitants, who are usually between forty and sixty years of age. Their authority is, however, very limited; nor can I find that the distinction is hereditary, but is given to those who have distinguished themselves by some act of prowess, as well as to others who have gained respect by their good common-sense or superior wisdom. Except by the weight of their counsel, and the veneration their age may inspire, they are powerless either to command, to punish, to quell a disturbance, or to make war; the women as well as the men have all a voice in these matters. Notwithstanding, their advice is generally taken in any matter concerning the interest of the village, or in any personal dispute. They receive no tax or tribute from the people, but as a rule own a larger portion of land, which they culti-

vate themselves. No reception-houses are set apart for visitors by the Motu, Koiari, or Koitapu, as is the case among the Maiva, so that it becomes the duty of the chief to lodge and entertain strangers, who expect to be treated with equal hospitality when they go inland, or make journeys in their canoes along the sea-coast. On such occasions many of the inhabitants go out either on foot or by boat to meet and welcome the strangers; and when they leave, after a few days or weeks, the chiefs accompany them for a short distance on their way back.

Christmas-day soon came round again (my last had been spent at Babylon, while on my present travels), and my thoughts involuntarily turned to the scenes of merry-making in our own dear land—the crisp frost and snow, the cheerful fire-side, and our loved ones gathered around, perchance wondering what we were doing on that day. What a change is Christmas-day in New Guinea!—the thermometer standing at 100° in the shade at mid-day, none of your home circle around, but in their place a lot of naked, uncivilized aborigines, begging constantly for *kuku*! Happily the half-hundred-weight of tobacco I brought was drawing to an end, so that my visitors were not quite so numerous as heretofore. Out of twenty-eight pounds of red beads I brought, only three or four remained, so that I had to be as sparing of them as possible.

As we had become somewhat tired of tinned meats and kangaroo, we tried to purchase a pig from the natives for our Christmas dinner; but though we could not succeed at first, yet after a good deal of bargaining, in which it seemed to me half the population took part, we triumphed. This and a plum-pudding, together with some Bass's ale, did not constitute a bad Christmas dinner, and we enjoyed it accordingly.

Not many days afterward Hargrave went out shooting at the foot of Mount Tapaharti, and to our surprise and delight returned laden with part of another pig—as much as he could carry. He had killed it while roving in the long grass, and did not stop to think whether it was a wild or tame one. The following morning, however, two claimants put in an appearance as owners of the pig; and in the afternoon we saw several natives, as well as the man we afterward found to be the rightful owner, coming toward us in a determined attitude with clubs and spears. Most of the men carry the latter when they leave their village, for the chance of killing a stray kangaroo, so we thought nothing of the spears; but the clubs presented an unusual appearance. Two or three of the leaders were very much excited, and spoke so loudly that, not knowing what was coming next, we buckled on our revolvers, and, backed by the others, I went out with my violin, hoping to appease their anger. The effect of a few scrapes was astonishing, and reminded me of David playing on the harp before Saul, “when the evil spirit was upon him:” “David took an harp, and played with his hand; so Saul was refreshed, and was well, and the evil spirit departed from him.” The men were at once quieted, and listened to reason—to come for payment in two days, should the lost pig not be found in the interval, and then remained to hear another scrape on the unmusical instrument. It was wonderful how many people seemed to have lost a pig just about that particular time; some brought their friends with them to try to identify portions of it, after they were cooked. The word *buruma*, pig, was in every one's mouth, eclipsing for the time being that of *kuku*, tobacco. The real owner, not finding his lost treasure, came with a crowd of his friends at the time appointed for payment, which consisted of one pearl-shell, one hatchet, two knives, one red handkerchief, three sticks of twist tobacco, and a quarter-pound of red beads.

Buying a pig is very much like buying a wife in this part of the world, the price being nearly similar.

A few days after Christmas we heard a great row in Anupata, and wondered what was the matter. Men and women were rushing about, the former armed with clubs, spears, and bows and arrows, and the latter with impromptu logs of wood and stout poles; and their number was

increasing every moment by men from Tanapata and Ilivara. The women took a leading part, their shrill voices being heard above the excited tones of the men. Accompanied by Hargrave, I went down to the village to see what it was all about, and on our way we heard that a woman had been murdered by her husband. It was this report that had raised the indignation of the natives, and had it proved true there is little doubt her husband would have shared a similar fate at the hands of the infuriated mob. It was a strange sight to see about six hundred wild-looking people, with sinews starting from their bodies, and eyes of fire, swaying to and fro, each eager to obtain a forward place. They made room for us as well as they could, and we jostled our way among them. On being convinced that the woman was still alive, the men quieted down considerably; but the women, and particularly one old hag (the sight of whom nearly turned me sick), still continued to speechify to the crowd. All this disturbance was in consequence of a man having two wives who couldn't agree! It proved the wisdom of the Motu in thinking one quite sufficient. The man had only recently married his second wife, and the first, not approving, had been actively engaged during the last two days in destroying her husband's plantation, for which labor of love she had received a severe chastisement, though she had not been killed.

This reminds me of a story once told me by my dragoman on the Nile, an Arab. He had married a second wife while his first was living. He bought wife No. 2 in Nubia, for forty pounds; but his first wife so ill-used and bruised her that he thought to himself, “If I keep her any longer, she will be so scratched and ugly that I shall be unable to sell her for as much as I gave.” He disposed of her, and so did my New Guinea friend.

CHAPTER XIII.

A TRIP TO BARUNI.—MURDER COMMITTED.—THREATENING ASPECT OF THE NATIVES.—COLONIZATION.—MY DEPARTURE.

“Ring out the Old, ring in the New,
Ring happy bells across the snow.”

THE New Year was not ushered in as the above lines describe, with sounds of joy and gladness; nothing whatever occurred to remind us that we had entered upon another year, and that we must henceforth regard the old one in a retrospective light only.

On that day (1st of January) Hargrave accompanied me in a canoe to the Koitapu village of Baruni, overlooking Fairfax Harbor, and we were punted thither by the sons of Hini, the Tanapata chief. A small native canoe like that we used is called a *vanaki*, and is hollowed by stone hatchets and fire out of a solid trunk, and pointed at each end. It has a small platform firmly fixed across the middle, projecting six feet over the water on one side, the extremity of which is supported by a floating beam, also pointed at each end. This arrangement keeps the boat, which would otherwise be very likely to capsize, quite steady, and allows sitting room for a small family. We had a very pleasant trip, for our companions were jolly fellows, singing, joking, and smoking by turns all the way. While at Baruni, I became the owner of a little land in the neighborhood, about twenty-eight acres, containing plumbago, or *okor*, on and beneath its surface, and twenty-two acres of adjoining mangroves. The former plot of land was too rocky and barren for cultivation, and was therefore useless to the natives. The members of each family possess plots of land near their own homes, the boundaries of which are clearly defined, and a man named Kemikamika and a woman named Mapata were found to be the rightful owners.

An idea of the value of land, in the estimation of the natives, may be had from the miscellaneous nature of my payment, which I will mention for curiosity's sake, as it is probably the first transaction of the kind in this *terra incognita*. It consisted of two hatchets, four knives, twelve feet of turkey-red serge, four red handkerchiefs, two pounds of red beads, twenty-eight sticks of tobacco, four looking-glasses, and one pearl-shell.

On the 6th of January, Broadbent had a severe attack of intermittent fever and ague, which increased in severity, and completely prostrated him; Petterd remained very weak; the missionary himself was suffering from the same complaint, as well as Ruatoka, the native Polynesian teacher, his wife, and the three widows. It was pitiable to see them. Although neither Hargrave nor myself were actually ill, we never felt so well as in other climates; the nature of the atmosphere is very relaxing, though the land about Port Moresby is hilly, and free from swamps. To the number of deaths among the Polynesian teachers I have already referred.

Two of the Hula trading canoes returned to the village of Papakori, six miles away, on the 14th, and the same night a Koitapu man was murdered there. He was returning home to Patsiri, a village near, when this act was committed. He was speared through the body, and his head carried away by the murderers. On hearing this, the Koitapuites rushed affrighted from Patsiri, accompanied by several from other villages, in great alarm at the Hula canoes which contained their enemies. As soon as the canoes had left Papakori, the natives returned to Patsiri, and finding no one to kill in revenge among their assailants, put to death the widow of the murdered man! I refused for some time to credit such a story, but found it true; the widow proved, moreover, to be a Motu, a tribe which was friendly with the Koitapus. The following day many natives from Port Moresby went overland to Patsiri, taking with them some extra weapons, but returned the same evening without having made a disturbance, having calmed their passions by merely looking at the dead bodies. It was rather fortunate for us that the villages near were so deserted on that particular day, for an incident occurred in the morning which roused the remaining natives into a state of great anger; and at one time we were rather fearful of the consequences. A maliciously disposed native dog had been eating up two of the teacher's chickens, and in consequence of this the teacher had shot the animal. I was away at the time, but returned soon afterward, and saw several natives coming up the hill gesticulating violently, evidently very much excited. I was at the door of Ruatoka, the teacher's grass house, when they arrived, he himself being a short distance off. The leader stood before me, mad with rage, and was just about to shoot an arrow, when Ruatoka pounced upon him from behind, and after a scuffle succeeded in wrenching his weapon from him. Knowing at the time nothing about the story, the conduct of the natives surprised me. I thought the man was about to shoot me, but afterward found that his arrow was intended to hit some fowls underneath the house of the teacher, the floor of which was raised above the ground, in revenge for the loss of the dog. Ruatoka ran quickly by me into his house, where he deposited the bow and arrows; the leader followed, and was endeavoring to force his way, when I stopped him, and sent him flying down the steps again faster than he approved of. Picking up a large piece of pottery that happened to be near, he hurled it at the door with such force as to split it. The dog that had been killed happened to belong to Hini, the Tanapata chief, and this leader was his eldest son. A younger son carried a firebrand, threatening to burn the house, but we took it away as quickly as possible; a third son was armed with a club and several spears. Ruatoka, a fellow more brave than discreet, on hearing his door split, went out, and defied any of the crowd to touch him. Meanwhile the leader had stealthily entered his house at the back, and was on the point of regaining his bow and arrows, when Hargrave stopped him and turned him out again. He then snatched the club from his brother, and, being wrath with us for knocking him down the steps, was about to rush at us, when some of the women held him back, and disarmed him. Hini himself happened to return from his plantation just at this period of the proceedings, and with considerable dexterity counterfeited being in a towering rage. He jumped about, ejaculated at the top of his voice, and smacked his posterior with great vigor at the end of each sentence. Finally, as though

angry with all the people and with his sons in particular, he snatched their weapons and flung them to a distance. By this time I had got my violin and was scraping away, and among my audience I shortly perceived Hini's three sons, who had cooled down, and with the rest were quietly listening in ecstasy to its unmelodious squeaks. Again, as I played, the evil spirit departed. And so ended the disturbance.

In the evening my old friend Koawagira and other Koiaris from the district of Munikaira paid us a visit. They had come to make purchases, but were afraid to remain more than one day on account of the Hula people, so intended to return on the morrow. The huge chief seemed as hearty and laughed as much as ever, almost making the ground tremble beneath him; all were much struck by the novelty of the different things they saw. They were so eager to obtain a pickle-bottle full of white salt they saw, that I made them a present of it, as well as some boxes of matches, etc., much to their delight. Koawagira told me that if we ever went to Munikaira again, he would give us plenty to eat, for we were his best friends.

A few days afterward Hargrave and I went in a canoe on a fishing excursion in the harbor, not, however, with nets, but with dynamite, as we wished to show the natives who accompanied us a new method of catching fish. A fuse was applied to the cartridge and thrown into the water, and the tide accidentally carried us slowly toward the spot. In half a minute the lighted fuse (which burns under water) had reached the paste, and the shock caused by the explosion sounded so much like a sledge-hammer striking the bottom of our canoe that we expected to have found it cracked all along. The natives lay down flat in the boat as though shot. It killed all the small fish, numbering about a score, within a radius of half a dozen yards, and we had still greater success afterward.

The heavy rains that now took place almost every evening had caused the withered grass to look quite green, and to vegetate so rapidly that in the five weeks since our return from the interior it had grown no less than between two and three feet. A journey inland would be, therefore, doubly tedious at this time of the year. Not only this, but much of the grass had gone to rot, and the latter, being barbed like a fish-hook, pierces one's trousers as he walks through the grass, and remains there, so that each seed has to be separately withdrawn. I have been covered with hundreds during a short walk, and the sensation I experienced was like so many pins digging into my flesh. On this account I do not recommend this season for attempting a journey inland, but rather July or August. After the grass has grown to its present height kangaroos cannot easily be seen, and shooting them becomes a matter of still greater difficulty than at other seasons of the year.

We had been expecting the little missionary vessel for some days, and when the *Ellengowan* at last hove in sight, on the 20th of January, we were glad to welcome her. She had been detained owing to an accident to the screw-shaft during her voyage up the Fly River, from which she had just returned with the Rev. S. Macfarlane, after a successful journey of one hundred and fifty miles, since which time the river has been ascended by Signor d'Albertis, in a steam-launch, a distance of three hundred miles. The country bordering that river is, even at so great a distance from the sea, low, and more or less swampy, like that in the neighborhood of the Baxter. The result of the exploration of the Fly River has been (like that of the Baxter) unsatisfactory, so far as the idea of colonizing is concerned. "It is," says Dr. Bennett, of Sydney, to whom Signor d'Albertis first wrote an account of his journey, "certainly a fine stream, but practically leads to nothing, and the country on both sides for hundreds of miles is miserable, useless, pestiferous swamp. Moreover, the few natives who manage to live along its banks are evidently implacably hostile." It is quite evident, therefore, that New Guinea is totally unfit for settlement in that quarter. There have lately been serious thoughts of colonizing the island,

and the climate of the country is an important consideration. I have already given certain statistics which may not be thought encouraging, but the deaths alluded to are confined to the colored natives of Polynesia. It is generally admitted that Europeans can withstand the fatal effects of illness caused by changes of climate better than most dark races, and consequently recover from many diseases which are fatal to the latter. Still, the coast of the peninsula, though chiefly high land and comparatively free from swamps, cannot be called healthy for Europeans. The climate of the mountain district farther inland would, I feel convinced, be found far superior, and it is there that the soil would best repay the labor of cultivation. Even along the sea-coast the danger is greatly lessened if proper precautions are taken in having well-ventilated houses, good diet, and stimulants only in moderation.

I quite believe that the inhabitants themselves are sufficiently intelligent to be capable of greater civilization; but to effect this change too much care cannot be exercised. Any large or sudden influx, without its motive being perfectly understood, would either be resisted by force, or else drive the inhabitants from their own homes and plantations into the interior, only to result in their extermination, as is the case now among the aborigines of Australia. Of all modes of colonization among an untutored people, I conceive that to be the best which is attained by peaceable means, which, while not permitting insubordination, yet exercises gentleness, and which allows the people, whether white or black, to have some interest in the government. It has been contended that the Dutch system is one of oppression, if not of slavery; but I am unable to agree with that opinion. To me it is an argument in its favor that it obliges an indolent people, even against their will, to become tillers of the soil, so as to render them useful members of society; and after a little time they themselves reap the advantage, are happier, possess better homes, and *all are benefited*. Such is the case with the eighteen million inhabitants of Java under the Dutch, and a system that can accomplish this end is not one to be lightly regarded.

To return to my narrative. The day was drawing near for me to leave New Guinea. Except the specimens of natural history and curiosities I had collected, there was little for me to take away, for I wished to give everything I had left to the Polynesian native teachers, as some acknowledgment for their kindness to myself and party. The corn-flour had not been used at all, excepting by sundry rats who appeared to relish this new import. This, with two sacks of rice, some flour, biscuits, and brown sugar, a dozen pounds of gunpowder, and a few other trifles, were the principal articles of my parting presents to the teachers.

The 25th of January was fixed for our final departure, and on that day natives from all the neighboring villages flocked to take leave of us. To the chiefs I made parting presents; and to old Ila, the king, I gave my travelling-rug, whose many colors had so taken his fancy in by-gone days. Even Hini, the Tanapata chief, whom I so greatly offended by thrusting out of my tent when I found him carrying away my corkscrew, came to say good-bye. It was a sad and mournful parting from these wild-looking but friendly people, who in their own rough, untutored manner came to take a last look at us who had befriended them during our residence among them, and given them so many beautiful presents. My eyes half filled with tears as both men and women clustered round me, and held out their hands in true English style, to be shaken. On saying good-bye to the Polynesian native teachers they seemed greatly moved, and some were even in tears. So with a sad heart I bade farewell to New Guinea, and the many friends whom I was leaving. It was a truly affecting parting, and one that, though I cannot describe, I shall never forget. The natives voluntarily assisted in carrying my packages to the boat, and as the golden sun dipped into the sea I stepped from the land of New Guinea into the frail craft, and pushed off

to the *Ellengowan*, where we slept that night, to be ready for an early start in the morning.

At break of day I was awakened by the clanking of the chains as the sailors were hoisting anchor. On reaching deck, I was surprised to find that old Ila had taken it into his head to come and see me. In his hands he carried a head-dress made of bird-of-paradise feathers, which I anticipated he intended to give me as a parting remembrance; but though they are an affectionate, yet they are by no means a generous, race. Hence the great man had come at that early hour with the twofold purpose of saying "Good-bye" again and doing trade; but as I declined to give him anything for the head-dress, he was obliged to take it back again. Before leaving, the old man gave me a good hug, which was disagreeably rough; he brought his nose in violent contact with my own, and rubbed his olfactory organ against mine, in token of affection, saying the next time I came to Anupata he would go with me to my country. "Well, old Ila," thought I, "whatever thy good traits, telling the truth is certainly not one of them, neither is generosity! Better, however, to be a friend, although ungenerous, than a generous enemy, and thou mightest have been the latter. With all thy faults, therefore, King of the Motu, I like thee still, and feel that, should my earthly pilgrimage again lead me to the country of thy birth, I shall again find a friend in thee."

The screw revolved, the canoe paddled back, and we were off.

CHAPTER XIV.

RETURN TO RORO.—TURNING TURTLE.—WELCOME BACK TO AUSTRALIA.

THE day was cloudless, and the sea like glass as we set sail, and in the afternoon we anchored in Hall Sound, off Yule Island (Laval). Scarcely had we arrived there, when Dr. James, an American (who had previously been doctor on board the sailing-ship *Chevert* during her unsuccessful attempt to reach the Fly River), and his assistant, came in a canoe to see us. Both looked mightily changed in appearance since they landed there three months before. Then they were in the most robust health, but now they were so emaciated, and altered by attacks of fever and ague, and insufficient nourishment in consequence of having run short of provisions, that at first sight I scarcely recognized them. In addition to fever, his assistant was suffering from a large sore on the calf of his leg, caused by knocking it against a mangrove root, the severity of which had increased daily, until it had become serious. Indeed, he was altogether so unwell as to make it necessary for him to return with us, and we took him on board, leaving the doctor a fresh supply of food. The seeds of the disease from which they were now suffering were no doubt first implanted in the system while they were crossing the mangrove swamps, which are common on the neighboring coast.

In consequence of the leakage of the ship's boiler, we remained at anchor the following day, and I went on shore and dined with the doctor in a new grass house he had just completed. The next day, as we were about to start, the boiler began to leak again more than ever, and we were obliged to remain that day also. It afforded us the novel spectacle of a marvellous swarm of butterflies, so numerous as almost to darken the air, all flying in the same direction.

On the 29th we bade farewell to Dr. James. He was joined a few weeks afterward by a Swede named Thorngren, who owned a small sailing-boat, and to whom I have before alluded as being fond of adventure, and the discoverer of the Manumanu River (the Usborne of Captain Moresby). Poor fellows, they were soon destined to an untimely end, for both were murdered shortly afterward. They went across at an early hour to the main-land in Thorngren's boat, with a crew of seven natives from the islands of Torres Straits. The crew state that just before daylight two canoes full of New Guinea men were seen approaching the boat; they thereupon asked Thorngren for fire-arms, but he, thinking

they were merely coming to trade, refused to give them. While Dr. James and Thorngren were trading, a native suddenly struck the latter with a club, smashing his skull, and knocking him overboard. Dr. James shot one man with his revolver, but was almost immediately thrust through with a spear and killed. The boat's crew then got their guns, and succeeded in beating off their assailants, after two of their number had been speared. Whether or not any provocation had first been given by Dr. James it is impossible to say, but if so, the natives, as we have seen before, are not slow to resent any supposed injury, although otherwise not unfriendly.

The next day we anchored off Bramble Cay, a mere sand-bank rising only a few feet out of the water, about half a mile across, and sparsely covered with rank weeds, but growing nothing else. Upon it was a turtle-shell fishing-station, belonging to an enterprising South Sea Islander, commonly known as Black Peter. A couple of Queensland natives, who looked very wretched, and lived in a roughly constructed mat hut, had been left in charge, and were the sole occupants of this desolate island. Two kinds of turtle are found there, namely, the Hawkspur and the Green. Of these the Hawkspur is the most valuable, on account of its beautiful mottled shell, so generally admired, used for ornamental purposes. The green turtle is most numerous; the flesh of the two species is equally good, and constitutes, with a sort of dog biscuit, the chief diet of those who are left in charge of the station. We requested the men to save us the next couple of turtle they saw, to take back to Somerset, and then returned to the *Ellengowan*. Early in the morning we saw a signal flag flying to inform us that this had been accomplished, so we pulled to shore, and found not only two but five immense ones awaiting us. Each must have weighed a couple of hundred-weight, and measured five feet long. Altogether we traced the footprints of about thirty turtle, that had been up the sand-bank during the night to deposit their eggs. We also procured three bucketfuls of eggs from as many nests, which were made two feet beneath the surface of the sand. These eggs are perfectly round, about two inches across, the external shell being quite soft, like a white skin. The yolk when boiled tastes like that of a hen's egg, but the white is oily, and has a fishy flavor. Several sharks were swimming in close proximity to the shores, while flocks of sea-gulls and other birds rent the air with their piercing shrieks. Having landed our turtle safely on the little steamer, we proceeded on our way, and anchored in the evening off Rennel Island, protected from a troubled sea by the extensive reefs that surround it. In no part of the world have I seen the phosphorescence of the water so great as here. The whole sea was illuminated, like a huge city lit up by so many gas-jets of great brilliancy—a most wondrous and beautiful spectacle on so dark a night. Only one light glimmered at intervals from among the low trees growing on the island, probably the camp-fire of some temporary resident from one of the neighboring islands, as Rennel itself is uninhabited.

After a rough passage on the following day, we took refuge in the evening under the shadow of Mount Adolphus, only seven miles from our destination, Somerset, where we arrived safely on the 2d of February, and were immediately welcomed back by Mr. and Mrs. Macfarlane, who were as glad to see us again as we were to see them. To Mr. Macfarlane, no less than to his wife, who rendered my stay in Somerset so pleasant and instructive, and owing to whose kind assistance my contemplated journey in New Guinea became a reality, I tender here my grateful acknowledgments.

In conclusion, I would observe that, however much has been done of late years in the opening up of New Guinea, yet the main body of it still remains a *terra incognita*, and I should like to see our Government organizing an expedition into its inmost recesses. The pecuniary difficulty of such an enterprise is the most formidable obstacle; nevertheless, it would not probably

entail the tenth part of the expense of an Arctic expedition.

I shall now remain content with hoping that I have been able to give some information which may not be wholly useless to future travellers in that great land where so much of interest yet remains to be explored. My desire is, that whoever may travel there may establish no less friendly relations with the inhabitants than I have done.

In bidding farewell to these shores, I thought with delight of returning to my native land. In whatever strange lands I may wander, the memories of my own loved country, of the beauty of its scenery and its fair inhabitants, can never be effaced from my mind by all the glories of sunnier climes.

"Breathes there the man with soul so dead,
Who never to himself hath said,
This is my own, my native land!
Whose heart hath ne'er within him burn'd,
As home his footsteps he hath turn'd,
From wandering on a foreign strand!"

APPENDIX.

THE following list of Motu words has been spelled on the French system of orthography, and compiled with as much accuracy as it was possible to do under the circumstances. It must, however, be understood that its complete accuracy cannot be guaranteed, and therefore it is given, such as it is, in the hopes that many words will be found among it useful to future travellers in that part of New Guinea.

Pronounce *a* as *r*, *e* as *i*, *i* as *e*, *u* as *oo*, and each letter separately.

A.		
Above, <i>atai</i> .		Bowl, <i>dihu</i> , <i>nao</i> .
Alive, <i>mauri</i> .		Boy, <i>miro</i> .
All, <i>lokola</i> .		Branch, <i>liki</i> .
Alligator, <i>uala</i> .		Break, <i>v.</i> , <i>mumuta</i> , <i>makhoi</i> .
Alone, <i>tipona</i> .		Breast (of woman), <i>rata</i> .
Ancestors, <i>tuputana</i> .		Breathe, <i>v.</i> , <i>haodi</i> .
Anchor, <i>toko</i> .		Bring, <i>v.</i> , <i>mailu</i> .
Angry, <i>patu</i> .		— forth, <i>mula</i> .
Another year, <i>ununeka</i> .		Broken, <i>maka</i> , <i>kuaitu</i> .
Ant, <i>dimaili</i> .		Brother (elder), <i>kokirn</i> .
Arm, <i>ima</i> .		— (younger), <i>tadina</i> .
Armlet (white shell), <i>toia</i> .		Burn, <i>kapua</i> .
— (plaited), <i>gana</i> .		— (pottery), <i>v.</i> , <i>tunutunu</i> .
Arrow, <i>dipa</i> .		Bury, <i>kuri</i> .
Ashamed, <i>hemalai</i> .		Bush (burnt), <i>vakolo</i> .
Ashes, <i>kahu</i> .		Butterfly, <i>kaubebi</i> .
Assemble, <i>apoua</i> .		By-and-by, <i>kerukeru</i> .
Attention, <i>hakedi</i> .		
Awake, <i>noka</i> .		
B.		C.
Baby, <i>kikina</i> .		Call, <i>v.</i> , <i>poi poi</i> , <i>boi</i> .
Back, <i>doru</i> .		Cane armlet, <i>bakibaki</i> .
Bad, <i>tika</i> , <i>lolo</i> .		— waistband, <i>kaniva</i> .
Bag (large netted), <i>kiapa</i> .		Canoe (small), <i>vanaki</i> .
— (small netted), <i>wain</i> .		— (slightly larger), <i>atsi</i> .
Bald, <i>boho</i> .		— (large), <i>akona</i> .
Bale out water, <i>v.</i> , <i>ranosa</i> .		— (large trading, two or three tied together), <i>laka-toi</i> .
Bananas (bunch of), <i>huku</i> .		Carry (on head), <i>v.</i> , <i>oraia</i> .
— (single one), <i>hukea</i> .		— (from forehead), <i>v.</i> , <i>di-bua</i> .
— (a small but particularly good sort), <i>unaua</i> .		— (on shoulder), <i>v.</i> , <i>huaia</i> .
— (a larger and very good kind), <i>akaru</i> .		— (child on neck), <i>v.</i> , <i>utua</i> .
— (the common kind, not very good), <i>biku</i> .		Cassowary, <i>kokokoko</i> .
Bandicoot, <i>mata</i> .		Centipede, <i>aia</i> .
Bark (for dyeing red), <i>arai</i> .		Charm (stone), <i>chirava</i> .
Bat, <i>mariboi</i> .		— (boars' tusks, used in dance and war), <i>kotsiva</i> .
Bathe, <i>v.</i> , <i>diku</i> .		— (tortoise-shell, used in dance and war), <i>musi-kaka</i> .
— another, <i>v.</i> , <i>adikua</i> .		Chase, <i>v.</i> , <i>avaia</i> .
Beads, <i>akev</i> .		Chest (of man), <i>kemi</i> .
Beetle, <i>manumanu</i> .		Chicken, <i>okouro</i> , <i>kokoroko</i> .
Before, <i>kuna</i> .		Chief, <i>loia</i> .
Beg, <i>v.</i> , <i>noinoi</i> .		Child (male), <i>miro</i> .
Betel-nut, <i>boitau</i> .		— (female), <i>kikeni</i> .
Bird, <i>manu</i> .		Children, <i>natuna</i> , <i>natuku</i> .
Bird-of-paradise, <i>lokofo</i> .		Chin, <i>atema</i> , <i>adi</i> .
— Bower, <i>koaka</i> .		Chisel, or gouge, <i>vatu</i> .
— Butcher, <i>gahuku</i> .		Clay, <i>laro</i> .
Black, <i>koremakorema</i> .		Clear, <i>neka</i> .
Blacken (one's self), <i>v.</i> , <i>kuma</i> , <i>kavia</i> .		Climber (a fearless one), <i>ko-piauka</i> .
Black-lead, <i>okor</i> .		Clothing, <i>tapua</i> .
Bladder, <i>posi</i> .		Cloud, <i>ori</i> , <i>takataka</i> .
Blister, <i>hou</i> .		Club (stone), <i>gahi</i> , <i>munu-munu</i> .
Blood, <i>rara</i> .		Cocoa-nut, <i>niu</i> .
Blow, <i>v.</i> , <i>lia</i> .		— (young), <i>kalu</i> , <i>karu</i> .
Body, <i>tau</i> .		— (expressed juice of), <i>motua</i> .
Boil, <i>v.</i> , <i>tumua</i> .		— (shell), <i>keperi</i> .
Boiling, <i>vaisia</i> .		
Bow, <i>peva</i> .		

Cocoa-nut (tree), *lita*.
Cold (very), *kerukeru*.
Comb, *iduari*.
Come, *mai*.
Come here, *ini mai*.
Cook, v., *hamuto, natoa*.
Cork, *potopa*.
Corkscrew (any instrument to bore holes), *ibudu*.
Correct, *ikado*.
Cough, *hwa, kua*.
Country (cultivated near village), *anua*.
Cover, v., *huni*.
— in, v., *tuhuni*.
Crab, *bora*.
Crooked, *kakeva*.
Croton (variegated), *taraka*.
Crown of head, *tupua*.
Cry (with tears), v., *vatain*.
Cuckoo-pheasant, *kunamaka*.
Cup (of cocoa-nut shell), *dir*.
Cuscons, *vaura*.
Cut, *ivaia*.

D.

Dagger (of bone), *aurai*.
Dance (pleasure), *mavuru*.
— (war), *kerurorauti*.
Day after to-morrow, *vana-ka*.
— after another, *unana-naka*.
Dazzling, *kurokurana*.
Dead, *mati*.
Descent, *diho*.
Desire (food), v., *boka-otola*.
Different, *itau*.
Difficult, *matuilamataila*.
Dig, v., *keid, luahua*.
Digging-pole, *isiva*.
Dirty, *milo*.
Disease, *hise*.
Disrespect, *adikaia, laka-na*.
Distant, *tautau*.
Division (of provisions, etc.), *heluaia*.
Dog, *tisia*.
Done, *maeta*.
Don't know, *setila*.
Door-way, *ituala*.
Double, *hailelu*.
Drag, v., *tatalo*.
Draw (toward), v., *veria*.
Drilling-machine, *ibudu*.
Drink, *iva*.
Drop, v., *hetutulu*.
Drum, *gaba*.
Dry, v., *akaukava, lalaia*.
— *kaukuu*.
Duck, *uka*.
Dugong (a large fish), *ru*.
Dust, *mili*.
Dwell, *naho*.

E.

Ear, *taia*.
Ear-rings, *orari*.
Earth, *tana*.
Earthen-ware cooking-pot, *ura*.
— pitcher, *hordu*.
— bowl, *nao*.
Earthquake, *laka*.
Eating, *aniani*.
Enclose, v., *kua*.
End, *toko, tokona*.
Englishman, *biritanu*.
Enough, *hoho, tsirkau*.
Even (to be), v., *hahekele-keli*.
Eye, *meta*.
Eyebrow, *meta-ibuna*.
Eyelash, *meta-laua*.
Eyelid, *meta-kopina*.

F.

Face, *vaira, vairana*.
Far (off), *tautau*.
Father, *tamana, tamaku*.
Fathom, *rorka*.
— half, *dimun*.
Fear, *aunavio*.
Feast, *aria*.
Fence, *ala*.
Few, *tamotama*.
Fingers (three middle), *dodori, seno*.
— (little), *kuakikuaki*.
Finished, *vatain*.
Fire, *laki, lahi*.
Firm (hard), *auka*.
First, *kuna*.
Fish, *kuaruma*.
Fish-hook, *kimai*.
Fish-net, *reki*.
Fish-spear, *karaut*.
Five days hence, *unaneni-kailua*.

Flint, *vesika*.
Flow (out), v., *lalilali*.
Fly, *lao*.
Foliage, *auturidobin*.
Follow, v., *muliku*.
Food, *aniani*.
Foolish, *karakava*.
Foot, *palapala*.
For you, *oi emu*.
Forehead, *vallana*.
Forest, *utu*.
Four days hence, *unanikai*.
Fowl, *kokoroko*.
Fragment, *bona, bonana*.
Friend, *turana, maino*.
Frizzing-comb, *iduari*.
Frontlet, *kapa*.
Fruit, *kuahua*.
— (rose-colored, in shape like an apple), *maila*.
— (of mangrove), *kavera*.
— (mango), *yahi*.
Full, *ekelilon, honu*.

G.

Gall, *autuna*.
Gape, v., *movamora*.
Generous, *halihali, ariari*.
Girdle (women's fringe), *rami*.
— (men's ordinary, of native cloth), *tsi*.
— (bark, for men), *kava*.
— (black cane, for men), *varai*.
Girl, *haninlato, kekeni*.
Give, v., *enia, eniku, tavana*.
Go, *lao, laumuu*.
Go out, v., *boto*.
Good, *nama*.
Good-morning, *lau mai* (lit. "I come").
— night, *mamahuta*.
Gourd (for lime), *ahu*.
Great, *pata*.
Ground, *tana*.
Grow, v., *vava*.
Gun, *ipidi*.

H.

Hair, *houi*.
Hammer, *ikoko*.
Hammock, *torto*.
Hand, *ima*.
Hard, *auka*.
Hatchet, *ila*.
— handle, *halala*.
Have, v., *apia*.
He, *ia*.
Head, *kuara*.
— cloth, *moka, veribota*.
Hear, v., *kamonai*.
Heart, *kutou*.
Heaven, *kuba*.
Heavy, *metau*.
Help, v., *tulua*.
Herald, *lava*.
Here, *ini, iniseni*.
Hill, *nesi*.
His, *iana*.
Hole, *matu*.
Hot, *siahu, niu*.
House, *ruma*.
How many, *hita*.
Hungry, *itala*.

I.

I, *lau*.
I don't understand, *lau ka-monai lusi*.
Illness, *tahula*.
Inattention, *keparai*.
Infant (male), *mero-kahuka-lu*.
Inland (to go), v., *vareni*.
Inland, *kuneki*.
Inside, *lalona*.
Island, *motumotu*.
Itch, v., *hinihini*.

J.

Joke, v., *ibulebu*.

K.

Kangaroo (male), *mikani, tipari*.
— (female), *miara*.
— call, *tsiviro*.
Kidneys, *nadinadi*.
Kiss (rubbing noses), v., *aherau*.
Knee, *tui*.
Knife, *kaia*.
Knot, *kuatua*.
Know, v., *dipa*.

L.

Ladder, *vata*.
Lamp-black, *kuma*.
Land, *anua*.
Language, *kato*.
Large, *paga*.
Last (in point of time), *kapia*.
Laugh, v., *keri*.
Lay down, v., *hikule*.
Leaf (from which tobacco is smoked), *napira*.
Leak, *putaro*.
Left (side), *lauri*.
Left (not brought), *lakatania*.
Leg, *ai, kumkum*.
— calf of, *doku*.
Let it alone, *mir*.
Liar, *koikoi*.
Lick, v., *temalia*.
Lift up, v., *keui*.
Light, *tiali*.
— (weight), *halaka*.
Lightning, *kivaruru*.
Lime, *ahu*.
Linen, *tabua*.
Lips, *bibina*.
Listen, v., *hakala*.
Liver, *ate*.
Lizard, *vaboha*.
Loins, *koekoe*.
Long ago, *seni, taulakana*.
Look, v., *itai*.
— down, v., *igodia*.
— up, v., *gakaivi*.
Looking-glass, *ivarivari*.
Lost, *boio*.
Lungs, *bulaki*.

M.

Make, v., *karaia*.
Male, *maluani*.
Man, *tau*.
Manucodia (a bird), *galu*.
Many (people), *utuma*.
Mat, *kipiri*.
Matter, *hula*.
Measure, *pepi*.
Melt, *kekirepi*.
Mid-day, *tubua*.
Milk (human), *rata-ranu*.
Mind (the thoughts), *auneka*.
Morning, *tataru*.
Mosquito, *namu*.
Moth, *tinana, tinaku*.
Mother-in-law, *lavana*.
Mountain, *orora*.
Mouth, *utu*.
Much, *tsirkau*.
My, *laukuu*.

N.

Nail (finger), *adaukuk*.
— (toe), *vasakuk*.
— (iron), *kokokoka*.
Name, *latuna*.
Navel, *huto*.
Near, *kaikai, kailakaila*.
Neck, *ketu, auki, aio*.
— stiff, *lakalaka*.
Necklace (dogs' teeth), *dadom*.
— (of small bell-shaped white seeds), *kikita*.
— (of small dark seeds), *ubo*.
— (of nassa shells), *tau-tau*.
Nephew, *wavan*.
Nervous, *lakaka*.
Net (fishing), *takai*.
— bag (large), *kiapa*.
— bag (small), *wain*.
New, *matamata*.
Night, *boi*.
— chant, *hehoni*.
No, *lasi*.
Noise, *lekana*.
Nose, *udu*.
— stick, *makola, mukora*.
Now, *ari*.
Nurse, v., *losia*.

O.

Object, v., *kuvetieti*.
Old, *kunana*.
Open, v., *kehoa*.
Opossum, *vakira*.
Ornament (shells for head), *bare, pariri, musinusi*.
— (kangaroo teeth for head), *atoo, tora*.
— (dogs' teeth), *dodom*.
— (boars' tusks, as brooch), *kakai*.

Ornament (or charm of boars' tusks), *kotsira*.
— (flat spiral shell, as brooch), *bo*.
— (cassowary feathers, for head), *turubu*.
— (fur of cuscus, for head), *vaura*.
Orphan, *ihaleha*.
Outside, *mulimuli*.
Overhead, *tupua*.
Oyster, *agua*.

P.

Pandanus-tree, *kelekel*.
Parents, *tupuna*.
Parrot, *kakai*.
Pass (before a chief), v., *helukau*.
Patch, v., *bania*.
Peace, *main*.
Pearl-shell, *mairi*.
People, *tauninanima*.
Pick up, v., *koko*.
Piece, v., *kataia*.
Pig, *buruma*.
Pigeon, *bisini*.
— (the crowned), *tumouia*.
Pillow, *kina*.
Pipe, *baubau, ahadi*.
Place, *kapuna*.
Plait, *bani*.
Plantation, *uma*.
Plenty, *siakau*.
Plumbago, *okor*.
Pocket, *vulin*.
Poisonous root (used for catching fish), *tuba*.
Posterior, *tuutu, kunu*.
Pot (earthen-ware), *hordu, ura*.
Potato (sweet), *kamataho*.
Praise, v., *anumoa*.
Preach, v., *alolo*.
Precede, v., *lukakuna*.
Pregnant, v., *lokoloka*.
Present time, *vata*.
Presently, *toho*.
Pull, v., *tavea, beri*.
— up, v., *botua, lakaia*.
Pupil of eye, *matu-nadinadi*.
Push (with shoulder), v., *eseti*.
— (with hands), v., *daria*.
Put down, *atoo*.

Q.

Quarrel, v., *heai*.
Quick, *halaka*.
— to do, v., *isemanaka*.

R.

Rain, *medu, rumoa*.
Rash (illness), *lali*.
Rat, *bila*.
Red, *kakakaka*.
Reed, *silihu*.
Refuse, v., *tataloi*.
Rejoice, v., *moati*.
Return, v., *lou*.
Reverse side, *mulina*.
Rheumatism, *loki*.
Riches, *kahu*.
Ripe, *maki*.
Rise, v., *toloidi*.
Roast, v., *nonoa*.
Rob, v., *kimakai, vaholita*.
Rocks, *moemioi*.
Root, *kuhi*.
Root (edible, of bananas), *malu*.
Rope (large), *mataboi*.
— (small), *kuanau*.
Rose (china), *vahurahu*.
Rostrum (in front of chiefs' houses), *toubu*.
Rotten, *hukuhuka*.
Rubbish, *moma*.
Rudder, *tali*.
Run away, v., *heao*.

S.

Sacred, *helaka*.
Sago, *rabir*.
Sail, *lara*.
Salt, *tumena*.
Sand-fly, *teni*.
Satisfied (eating), *bokakuna*.
Scar, *varovaro*.
Scratch, *hekakala*.
Scrotum, *apo*.
Sea, *tavara*.
— spirit, *vaoha*.
Seeds, *nadinadi*.
Send, v., *siai*.
Separate (combatants, etc.), v., *hetoko*.

Set up a thing, v., *akinia*.
Shade, *kerukeru, takahu*.
Shallow, *kikoho*.
Share, v., *pava*.
Sharp, *kanu*.
She, *ia*.
Shell, *bareko*.
Shield (wood), *kesi*.
Shingle, *miri*.
Shining, *kevalu*.
Ship (large trading), *lakatoi*.
Short, *katoi, katoki*.
Shoulder, *paka*.
Shout out, v., *lolo*.
Show, v., *amaora*.
Shut, v., *kava*.
— the door, *ituala, kona*.
Side, *hupa, kana*.
— of body, *lakalaka*.
— (this), *inikai*.
Similar, *inimoi, heto*.
Sing, v., *ania, biresi, heoni*.
Sink, v., *mutu*.
Sister, *taihu*.
Sit down, *hilaidi*.
Skin, *kopi*.
Skull, *ged*.
Sky, *kuba*.
Sleep, *mahuta*.
Sleepy, *latorai*.
Small, *malaki*.
— (very), *dimuradimura, titina*.
Smash, v., *huari*.
Smell, v., *iruai, bonaia*.
Smoke, *kualuu*.
Smooth, *manatamanata*.
Snake, *kaikai*.
Sneeze, v., *asimana*.
Soft, *manoka*.
Sole (of foot), *palapala*.
Some days ago, *itavmekai*.
Son (first-born), *taukuna*.
Sore, *toto*.
Space, *taulo*.
Speak, v., *kau, ireva*.
Spear, *io*.
Spider, *makela*.
Spirit (with supposed power of killing), *vata*.
Splice, v., *hikikau*.
Split, *palala*.
— out, v., *pululua*.
Spoon, *bedi*.
Squeal, *kor*.
Squeeze, v., *kikia*.
Squirrel (flying phalanx animal), *silisili*.
Squirt out, v., *babobobo*.
Stalk, *kari*.
Stand, v., *kini ginitoi*.
— up, *gin*.
Steal, v., *henaa*.
Sticks (bundle of), *ahu*.
Sticky, *kama*.
Sting, *kuria*.
Stink, v., *botaka*.
Stomach, *boku*.
Stone, *nadi*.
— (plumbago), *okor*.
Stop, *noho*.
Straight, *maola*.
Street (or passage), *ariara*.
Strike, v., *kadia*.
— foot against, v., *tutuhia*.
String, *varu*.
Strong, *koata*.
Suck, v., *inua*.
Sugar-cane, *toho*.
Sun, *dina*.
Surprise, *hinai*.
Swallow, v., *atonoa*.
Sweep, v., *taloa*.
Swim, v., *nahu*.
Swing, v., *taupe*.
Sword-fish, *pikeri*.
— club, *kareva*.

T.

Take, v., *laohia*.
— back, v., *loulala*.
— this, *oui apia*.
— out, v., *kokir*.
— it away, *lao haia*.
Talk, v., *ereva, hula*.
Taro, *talo*.
Taste, v., *kavaia*.
Tattooed, *revareva*.
Tea, *vasiau*.
Teach, v., *adipaia*.
Tear, v., *apalalaia, talea*.
Teeth, *isi*.
— double, *katikati*.
Temples (of forehead), *medi*.
Thanks, *tonabinia*.
That's it, *oia oibi*.
They, *itia*.
Thick, *hutuna*.
Thin, *monu*.
Thing, *anina, kauna*.
This, *inai*.
Three days hence, *vainane-nikai*.
Throat, *kato*.
Throw, v., *tahar, hotoa*.

Throw away, v., *mikir*.
— down, v., *hekuletupi*.
Thumb, *senopata*.
Thunder, *rahua*.
Thus, *pamona*.
Tide (high), *utupata, dodo, hakaru*.
— (low), *makasi*.
Tie, *matui*.
— round, v., *hilipasa*.
Tobacco, *kiku*.
To-day, *ariari*.
Toes, *palakuaki*.
To-morrow, *kerukeru, tepo-riri*.
Tongue, *mala*.
To-night, *anuaboi*.
Toothache, *arituma*.
Track, *tara, ariari*.
Tree, *lau*.
Tremble, v., *hentente*.
Tribute about Port Moresby, *Motu*.
— scattered near coast, *Koitapu*.
— south of the Motu, *Karipuno*.
— north of the Motu, *Mai-va*.
— north of the Maiva, *Itema*.
— in interior, *Koiari*.
True, *momokani*.
Trumpet (of shell), *kibi*.
Truthful, *munukan*.
Turn (to look), v., *keporai*.
— over, *atohekila, baraka*.
Turtle, *matapudi*.
— shell, *gabori*.
Twins, *hekapa*.

U.

Under, *henuai*.
Untie, v., *luaia*.

V.

Vegetable-marrow, *oho*.
Veranda, *dehe*.
Village, *anua*.
Vomit, v., *mumuta*.

W.

Wait, v., *nahari*.
Walk, v., *alakaia, loa, ite-reka*.
War, *ala-ala*.
Wash, v., *heloho*.
Watch, v., *kima*.
Water, *rano*.
— hot, *vasiahu*.
We, *ai, itu*.
Weak, *manoka*.
Weapon, *kota*.
Weep, v., *tai*.
Wet, *palipali*.
What is the name of? *leta-nataik*.
What is this? *taka? uta-nata?*
What will you give me? *taka tarana?*
Where? *eti? iliseni?*
— are you going? *ai oi lao?*
— is your house? *oi rum iliseni?*
Which, *etea*.
Whisper, *hemaunu*.
Whistle, *toka*.
White, *kurokuro*.
— hair, *buluka*.
Who, *taika*.
Why, *kuau*.
Widow, *vapu*.
Widower, *valo*.
Wife, *tarana*.
Wind, *luhi*.
— S.E., *laurapata, uitau*.
— N.E., *mirikin*.
— S.W., *tahodio*.
— N.W., *lahara, lura*.
Woman, *haini*.
Wood, *veri*.
Wrecked, *hulekau*.
Writing, *levaleva*.

Y.

Yam, *maho*.
Year, *neka*.
Yes, *oibi, io*.
Yesterday, *varani*.
You (or thou), *oi*.
— (pl.), *umoi*.
You stay, I go, *oi naho lau-lao*.
You two, *laluaoti*.

COMPARISON OF WORDS IN VARIOUS NEW GUINEA AND TORRES STRAIT ISLANDS DIALECTS.

The same Remarks respecting the Pronunciation apply to this List as to the foregoing.

ENGLISH.	TRIBES.								
	MOTU.	KOTAPU.	KOIAEI.	KIRAPUNO.	MAIYA.	ILEMA.	LAVAL (Yule I.).	MACHIK (York I.).	ERUB (Darnley I.).
Alive	mauri.	magori.	kodi.		karia.	urai.	maurimaui.	omagik.	nole.
Alligator	uala.	fugi.	hne.		puala.	isafe.	busia.	katal.	
All right	tonabinaia.	moini.	bilikava.	kilalim.	baimoi.	asi.	lokn.	isoa.	isuon.
Arm	ima.	ada.	ada.	gim.	ima.	bai.	imaka.	git.	gem.
Arrow	dipa.	diba.	diba.	dipa.	punu.	forita.	paki.	kaigob.	kep.
Back	deru.	didife.	gadiva.	dori.	kepena.	koidi.	kape.	kal.	sorajia.
Bad	tika.	danri.	tauri.	tika.	aukianie.	kakari.	ikia.	watinga.	adut.
Banana	biku.	uhi.	ufi.	ani.	varupi.	varupi.	warupi.	katam.	kaba.
Beads	akev.	akev.	agev.	aiva.	amuraru.	siua.	oho.	kusek.	tafoakarnb.
Beetle	manumanu.	goaramika.	bini.	manumanu.	ruro.	kipi.	epidi.		
Betel-nut	boitau.	fara.	fara.	koki.	jaboi.	eferi.			
Bird	manu.	ugua.	ugu.	amo.	raboaraboa.	ori.	rahorabo.	urui.	iboa.
Bird-of-paradise	lokoho.	fanava.	anava.	lokono.	inebia.	aha.	inechi.	dogiam.	
Black	koremakorema.	dubn.	dubuku.	ruparupa.	kapiarupua.	aroa.	ekuma.	kubikubi.	goligoli.
Bring	mailai.	morogo.	moloku.		maiena.	avaia.	maiena.	napa.	karimtika.
Brother	tatina.	angorgi.	itata.	haligu.	atsiu.	malakia.	batsina.	tukuiab.	nerabiat.
Butterfly	kaubebe.	beberuki.	ivako.	kanpipi.	kanbebe.	bibi.	ibibi.	kapa.	kapa.
Canoe	vauaki.	vanaki.	eu.	ai.	vanaki.	roti.	vanaki.	mekikula.	nara.
Cassowary	kokokoko.	ia.	ia.	polavaia.	uiva.	oiva.	bio.	sama.	sama.
Chest	kemi.	doka.	doka.	kofa.	kememo.	haivai.	ariareka.	kabu.	maramut.
Chief	loia.	rofi.	rofi.	veli.	obihaumi.	soi.	aitaivan.	ladiak.	isimi.
Child	kikeni.	maigoiki.	maian.	lau.	hoaboa.	bari.	inuori.	kazi.	verima.
Chin	adi.	fatia.	baiaia.	lama.	uika.	huari.	atika.	bag.	
Cloth	tabua.	dabua.	orgo.	nabora.	paraia.	para.	abnui.	angauai.	wali.
Cocoa-nut	niu.	baga.	baga.	niu.	tona.	raba.	tona.	orab.	ziru.
Cold	kern.	gogobenonu.	daba.	makula.	kopakiki.	vasisiri.	ama.	galalupa.	tobaka.
Come	mai.	orogo.	ortua.	gera.	mai.	ahuru.	kuasai.	aisa.	kobirk.
Cough	hua.	inotot.	inotot.	gera.	hua.	digosa.	tortsi.	kubirk.	
Croton	taraka.	vabi.	romaka.	taraka.	taraka.	ovaka.	bis.	sana.	sana.
Cuscut	vaura.	detoa.	vadako.	vogula.	ebubue.	soi.	aitaiwan.	ladaik.	isimi.
Cut	ivaia.	minu.	mi.	boro.	kaivana.	ehadi.	ewa.	kapai.	kapai.
Dance	mavarn.	javaia.	koakia.	pala.	kahori.	iaivati.	ari.	umim.	eomida.
Dead	mati.	foika.	kanibu.	mauri.	kaiaia.	waia.	avi.	umai.	omai.
Dog	tisia.	totoka.	etabomalodai.	kaba.	irarabu.	rota.	abura.	wanika.	irami.
Drink	inna.	ibeisa.	ai.	karavarava.	mesiarifo.	irarabu.	apa.	warupa.	warupa.
Drum	gaba.	aie.	aie.	ihiki.	iviki.	haio.	bilali.	tunipap.	dnbea.
Dugong (a fish)	rui.	ihiki.	iviki.	kuano.	kaiano.	kausa.	haiaia.	krusa.	laip.
Ear	taia.	vata.	foi.	foidu.	koan.	pasu.	roru.	fada.	kala.
Earthen-ware pot	hordu.	foi.	foidu.	koan.	uroru.	pasu.	roru.	malili.	malili.
Enough	tsirkau.	dadaga.	uita.	doa.	abua.	peadia.	inoku.	karanagri.	naikema.
Eye	mata.	mi.	mi.	ma.	maha.	omopari.	ma.	dan.	ponika.
Eyebrows	ibuna.	negofi.	negofi.	baillam.	ibun.	obukaf.	mabeki.	boibisom.	musu.
Face	vairana.	ni.	ni.	ni.	vaira.	omopa.	ma.	paru.	orba.
Father	tamana.	omami.	imama.	taihuna.	hamana.	uika.	hamana.	baba.	apa.
Fire	laki.	veni.	veni.	kalova.	iluba.	aha.	eluba.	mui.	uri.
Fish	kuaruma.	karava.	mesia.	mani.	maia.	tava.	maia.	wapi.	lala.
Fish-hook	kimai.	kimaina.	kimai.	nau.	kau.	faravu.	naku.	tudi.	mekika.
Fly	lao.	wonara.	honika.	nakam.	raumokai.	oropia.	hauma.	buli.	narigia.
Food	aniani.	tamuta.	tamuta.	aniani.	kahaniani.	api.	amaniani.	prutika.	iroa.
Foot	palapala.	vasifoatok.	vasifoatok.	agi.	paipai.	boro.	palapala.	nara.	tetia.
Fowl	kokoroko.	kokoroko.	kokoroko.	orouan.	kokoroko.	kokoro.	kokorohn.	kalakala.	kalakala.
Friend	maino.	dibiak.	maina.	maina.	pomora.	maino.	tukuia.	tebuda.	tebuda.
Frizzing-pin	iduari.	jeni.	tubu.	kobi.	kobi.	ini.	paiban.	ikna.	ikna.
Give	hinia.	amoi.	moima.	henia.	moain.	obirai.	beni.	kepuna.	debia.
Good	namo.	magi.	magi.	namo.	anunamuki.	meta.	namona.	iajawa.	bakiam.
Good-bye	mamabuta.	iagiso.	iagiso.	mahu.	kaparue.	iajadia.	tonia.	kinga.	aule.
Great	pata.	rafo.	boki.	aukemkem.	paian.	vudaia.	paian.	gogai.	sarika.
Gun	ipidi.	ipidi.	ipidi.	ipidi.	kisi.	porsa.	aitara.	ialbu.	nus.
Hair	houi.	omohauaka.	umu.	bui.	houikahe.	tupi.	buika.	geta.	taga.
Hand	ima.	ada.	ada.	gima.	ba.	imaka.	geta.	aga.	daumitilik.
Hatchet	ila.	uma.	huma.	khokho.	wapira.	oa.	wapira.	kuika.	kairema.
Head	kuara.	omo.	kina.	repa.	kuara.	aro.	akoka.	konga.	urui.
Hot	siabu.	vago.	dobu.	amumu.	siabue.	papafria.	mauru.	utalag.	miti.
House	ruma.	iaga.	numa.	itu.	numa.	itawa.	fitaru.	kobara.	koatilik.
Kangaroo	mikani.	minu.	minu.	wari.	itawa.	akiva.	toi.	akwa.	gitri.
Knife	kaia.	rati.	kavabu.	pan.	akiva.	ai.	boru.	aima.	nara.
Leg	ai.	vai.	vai.	ag.	ai.	api.	pinaka.	iragu.	mit.
Lips	bibina.	firua.	firuata.	pipina.	bibina.	favi.	mariodai.	girka.	kimia.
Looking-glass	ivari.	variva.	variva.	ang.	nemo.	eusi.	enchi.	iw.	lak.
Man	tan.	ata.	kunia.	tsinagu.	binahu.	namweka.	hinana.	aman.	apa.
Mosquito	namu.	onea.	inua.	orloa.	piara.	naipi.	oihoi.	kisigau.	pasia.
Mother	tinana.	nimm.	aha.	utu.	pipinakai.	tau.	pineka.	gnd.	te.
Mountain	ororo.	eno.	tui.	aigona.	aiova.	kikeau.	akoka.	muduba.	tabo.
Mouth	udu.	arasa.	matatan.	aio.	movio.	rehi.	tchite.	rahi.	hariek.
Neck	auki.	takai.	koi.	las.	obaim.	la.	abai.	linga.	nole.
Necklace	tautau.	vetia.	vechi.	idu.	udumo.	evera.	ichuka.	piti.	piti.
Net	takai.	uri.	uri.	lagi.	mabi.	itavi.	mairi.	mai.	mai.
No	lasi.	iagi.	ofova.	pai.	aipora.	ira.	aipora.	buruna.	buruna.
Nose	udu.	ahadi.	abadi.	pau.	ireri.	kika.	amahuna.	tirku.	zuba.
Pearl-shell	mairi.	ogor.	ogorta.	gum.	aro.	opo.	umarobi.	ura.	leoba.
Pig	burnma.	kuana.	kuangu.	goite.	kuana.	unau.	koro.	hona.	lagia.
Pipe	banbau.	rabi.	rabi.	lapi.	pario.	pai.	pario.	bis.	kebsavis.
Plumbago	okor.	lakatoi.	lakatoi.	lakatoi.	annahoi.	oroti.	haunahoi.	kegul.	annara.
Rope	kuana.	oamakeni.	inana.	taibugu.	hibu.	mari.	haibuna.	beubeta.	biribirta.
Sago	rabi.	kuba.	va.	inova.	kaposi.	lai.	biraura.	jia.	goligoli.
Ship	lakatoi.	lagisu.	lagia.	mau.	kaparua.	ibudu.	parua.	luna.	ateidi.
Sister	taibuna.	ovieki.	ramika.	ein.	koikoina.	porsa.	popona.	magidanga.	kebifi.
Sky	kuba.	viniduka.	viniduk.	vili.	vilivili.	forvortila.	chiabu.	wanika.	kemora.
Sleep	mahuta.	asimana.	asiman.	akisa.	mati.	asia.	atchio.	tiriap.	siau.
Small	malaki.	toto.	toto.	bagi.	oma.	isovi.	rua.	mulika.	nagali.
Smoke	kualau.	ireva.	revi.	worta.	ilaila.	kahavia.	davau.	halowai.	iklos.
Sneeze	asimana.	io.	vaiga.	vaiga.	olova.	napibiro.	be.	megi.	tagalu.
Sore	toto.	bedi.	bedi.	kaki.	tsima.	arisa.	urui.	kataitnori.	ikue.
Speak	ireva.	giri.	urima.	dugalai.	omikirie.	eri.	muwaka.	maita.	kem.
Spear	io.	nadi.	muni.	maro.	piara.	favi.	pitara.	mata.	pakia.
Spoon	bedi.	toho.	imi.	koma.	awauwa.	asi.	abauwa.	guru.	niru.
Stand up	gin.	dina.	veni.	aro.	viraura.	sari.	biraura.	gega.	girigia.
Stomach	boka.	taitu.	vaia.	aiu.	hau.	joka.	hilu.	nurinuri.	urigaba.
Stone	nadi.	tal.	vatu.	nahu.	onoca.	ma.	oboho.	gin.	gen.
Sugar-cane	toho.	isi.	egi.	ishi.	niki.	tau.	iteka.	dong.	tirek.
Sun	dina.	rahu.	nono.	varau.	kevara.	niro.	niro.	gegi.	ziru.
Sweet-potato	taitu.								
Taro	tal.								
Teeth	isi.								
Thunder	rahu.								

COMPARISON OF WORDS IN VARIOUS NEW GUINEA AND TORRES STRAIT ISLANDS DIALECTS—Continued.

ENGLISH.	TRIBES.								
	MOTU.	KOITAPU.	KOIARI.	KIRAPUNO.	MAIVA.	ILEMA.	LAVAL (Yule I.).	MACHIK (York I.).	ERUB (Darnley I.).
Tobacco.....	kuku.....	kuku.....	kuku.....	kuku.....	kukumeo.....	kuku.....	kuku.....	sikuba.....	sokoba.....
Toes.....	palakuaki.....	vasi.....	gobinum.....	koni.....	kuakiri.....	bora.....	deadu.....	dimoro.....	tetera.....
Tortoise-shell.....	gabori.....	gcbore.....	mimisa.....	ela.....	ava.....	farava.....	aba.....	kakera.....	kesa.....
Tree.....	hau.....	ura.....	idi.....	lako.....	matsiu.....	tora.....	irauchi.....	watara.....	sumisa.....
Turtle.....	matapudi.....	raioa.....	raioa.....	aua.....	monu.....	akieki.....	bonu.....	waru.....	nam.....
Village.....	anua.....	oroa.....	orgo.....	vanuka.....	aiarai.....	oiabu.....	aihira.....	lago.....	geta.....
Walk.....	alakaia.....	nota.....	nota.....	lao.....	kahaime.....	abipara.....	amakha.....	walaika.....	digemili.....
Water.....	rano.....	ea.....	eita.....	rana.....	ve.....	ma.....	bel.....	muki.....	ni.....
Whistle.....	ioka.....	figho.....	fiho.....	roa.....	ioka.....	beo.....	bio.....	watu.....	kom.....
White.....	kurokuro.....	kai.....	tauka.....	ulouloa.....	tsivatsiva.....	dogari.....	auneawaiwa.....	miakali.....	kargak.....
Woman.....	haini.....	maghi.....	maghi.....	vavina.....	babina.....	ua.....	babu.....	anuk.....	koskia.....
Wood.....	rere.....	vasa.....	varo.....	bua.....	rere.....	tora.....	machin.....	wata.....	lo.....
Yam.....	maho.....	tsina.....	zina.....	mahu.....	maho.....	maho.....	taba.....	kutai.....	levia.....
Yes.....	oibi.....	io.....	ireki.....	oibi.....	naiemohi.....	oibi.....	ei.....	woa.....	wau.....
One.....	tamona.....	igaku.....	igau.....	vapun.....	hamo.....	ritarita.....	aia.....	urapun.....	netat.....
Two.....	lua.....	apu.....	abuti.....	lua.....	perua.....	oraora.....	rua.....	kusa.....	neisa.....
Three.....	toi.....	apikaka.....	abiga.....	oio.....	vaiu.....	oroito.....	aita.....	kusaurapun.....	
Four.....	ana.....	apapu.....	ababu.....	vairai.....	vani.....	kaidiapo.....	bani.....	Count no higher.....	Count no higher.....
Five.....	ima.....	arakasiva.....	adakasiva.....	imaim.....	peima.....	tsinabu.....	ima.....		
Six.....	taratoi.....	agorukiva.....	agorukia.....	haulaho.....	auraho.....	hita.....	abaraia.....		
Seven.....	itu.....	akirikava.....	maghi.....	mapirauluwaiva.....	pevika.....	hitu.....	ababua.....		
Eight.....	taurahan.....	abueta.....	igauet.....	aulavaiva.....	aravaia.....	tauraha.....	ababanihamona.....		
Nine.....	ta.....	ikogneta.....	mefiriakan.....	mefiriakan.....	avaio.....	ta.....	ababanihamona.....		
Ten.....	kuauta.....	utupi.....	ugauaut.....	galan.....	harawai.....	kuauta.....	haluvaia.....		

NUMERALS.

1 Tamona.	18 Kuauta - taura-han.
2 Lua.	19 Kuauta-ta.
3 Toi.	20 Ruari.
4 Ana.	21 Ruari-tamona.
5 Ima.	30 Toi-avi.
6 Taratoi.	40 Ana-avi.
7 Ihu.	50 Ima-avi.
8 Taurahan.	60 Taratoi-avi.
9 Ta.	70 Ihu-avi.
10 Kuauta.	80 Taurahan-avi.
11 Kuauta-tamona.	90 Ta-avi.
12 Kuauta-lua.	100 Tinuta.
13 Kuauta-toi.	101 Tinuta-tamona.
14 Kuauta-ana.	1,000 Daba.
15 Kuauta-ima.	10,000 Tomaka.
16 Kuauta-taratoi.	1,000,000 Kerebu.
17 Kuauta-ihu.	

NAMES OF PERSONS.

MEN.		WOMEN.	
Boi, meaning night.	Anapata, meaning		
Gaba, " drum.	Buruma, " pig.		
Hini, " "	Giriki, " "		
Ila, " hatchet.	Hinau, " thief.		
Inesi, " "	Itola, " hungry.		
Koikoi, " liar.	Kari, " frighten-		
Kuba, " sky.	Kewa, " "		
Rova, " "	Tika, " bad.		
Vahu, " "			
Varoni, " "			

NAMES OF MONTHS.

Uiraura, 1st lunar month.	Virtitiri, 5th lunar m'th.
Koa, 2d " "	Uria, 9th " "
Laila, 3d " "	Laga, 10th " "
Tarotaro, 4th " "	Manumauri, 11th " "
Divaro, 5th " "	Biliake, 12th " "
Viatu, 6th " "	Biliapata, 13th " "
Virdiadi, 7th " "	

The following is a list of 116 species of birds, collected in the neighborhood of Annapata (Port Moresby) between the months of October and February. Mr. Bowdler Sharpe, of the British Museum, to whom I submitted my collection, says: "This was at the time the largest series of birds obtained by any naturalist in south-eastern New Guinea, and has not been outdone in interest by any of the collections since formed by the more recent travellers D'Albertis, Goldie, etc." Some were new to science:

1. Astur cirrhocephalus.	13. Trichoglossus massena.
2. Astur sharpii.	14. Chalcopsittacus chlorop-
3. Haliaetus leucogaster.	15. Eclactus polychlorus.
4. Haliaetus girrenera.	16. Centropus nigricans.
5. Milvus affinis.	17. " menebeki.
6. Baza reinwardti.	18. Eudynamis cyanocephala.
7. Pandion leucocephalus.	19. Cacomantis assimilis.
8. Strix delicatula.	20. Scythrops novae-hollan-
9. Plectolophus triton.	21. Ceyx solitaria.
10. Microglossum aterrim-	22. Alcyon lessoni.
11. Geoffroyus aruensis.	23. " pusilla.
12. Cyclopsittacus suavis-	

24. Halcyon sanctus.	69. Pseudorectes ferrugine-
25. " macleayi.	us.
26. Syma torotoro.	70. Colluricincla bruneana.
27. Tanyptera microrhyn-	71. Chibia carbonaria.
28. Tanyptera sylvia.	72. Oriolus striatus.
29. Dacelo intermedius.	73. Sphecotheres salvadorii.
30. " gaudichaudi.	74. Paradisea raggiana.
31. Rhytidoceros ruficollis.	75. Manucodia atra.
32. Eurystomus crassiro-	76. Phonygama jamesii.
33. Podargus papuensis.	77. Ptiloris magnifica.
34. Caprimulgus macurus.	78. Gymnocorax senex.
35. Cypselus pacificus.	79. Corvus orru.
36. Collocalia terra-regi-	80. Eulabes dumonti.
37. Pitta novae-guineae.	81. Calornis cantoroides.
38. Malurus albiscapulus.	82. " viridescens.
39. Cisticola rupestris.	83. Artamus leucorhynchus.
40. Gerygone cinerascens.	84. Donacola nigriceps.
41. " chrysogastra.	85. Chalcophaps stephani.
42. Eluroedus stonii.	86. " chrysoclorus.
43. Chlamydotis cervini-	87. Carpophaga muelleri.
44. Dicaeum rubrocorona-	88. " pinon.
45. Cinnerys frenatus.	89. " zoae.
46. Glyciphila modesta.	90. Carpophaga puella.
47. Myzomela obscura.	91. Ianthænas albigularis.
48. Tropicorhinus novae-	92. Ptilopus iozonus.
49. Ptilotis analoga.	93. " aurantiifrons.
50. Melithreptus albigularis.	94. " coronatus.
51. Arses aruensis.	95. Geopelia humeralis.
52. Piezorhynchus aruensis.	96. Goura albertis.
53. " gutturalis.	97. Megapodius duperreyi.
54. " nitidus.	98. Talegallus fuscicollis.
55. Monarcha carinata.	99. Synecus cervinus.
56. Rhipidura tricolor.	100. Lobivanellus miles.
57. " gularis.	101. Charadrius fulvus.
58. Micraea flavogastra.	102. Numenius uropygialis.
59. Todopsis bonapartii.	103. Totanus brevipes.
60. Myiagra concinna.	104. Actitis hypoleucos.
61. " latirostris.	105. Ardea sacra.
62. Hirundo javanica.	106. " flavicollis.
63. Cracticus mentalis.	107. Rallina plumbeiventris.
64. " cassicus.	108. Gallinula ruficrisa.
65. " quoyi.	109. Porphyrio melanopte-
66. Graculus hypoleucos.	110. Parra cristata.
67. Lalage karu.	111. Anas superciliosa.
68. " humeralis.	112. Dendrocygna vagans.
	113. " guttata.
	114. Tadorna radjah.
	115. Sterna melanauchen.
	116. Phalacrocorax leuco-

In the following list of camp equipments, procured at Somerset, Australia, I have given, as reference for future travellers, the cost of each article. Some were purchased from passing steamers, some from the private missionary stores, and a few from the only public store there; but the list does not comprise many articles previously possessed:

	£	s.	d.
300 lbs. ship biscuits.....	3	12	0
200 lbs. wheat-flour.....	1	4	0
2 cwt. maize-flour.....	1	15	0
1 cwt. rice.....	3	0	0
1 cwt. brown sugar.....	1	9	0
36 lbs. oatmeal.....	1	3	0
12 lbs. tea.....	1	7	0
6 lbs. arrowroot.....	0	5	0
3 jars salt.....	0	4	0
3 bottles vinegar.....	0	3	0

	£	s.	d.
1 tin curry-powder.....	0	9	0
1 tin mustard.....	0	3	0
6 tins carrots.....	0	16	6
3 tins peas.....	0	4	6
3 tins haricots.....	0	4	6
3 tins butter.....	1	8	0
36 tins preserve.....	1	16	0
1 tin biscuits.....	0	7	0
18 tins lobster.....	0	18	0
18 tins preserved milk.....	1	7	0
3 dozen tins assorted meats.....	4	9	0
2 dozen tins sardines.....	1	0	0
1 jar ginger.....	0	5	0
6 jars anchovy paste.....	0	7	6
18 bottles pickles.....	1	4	0
2 bottles Worcestershire sauces.....	0	4	0
100 cigars.....	0	12	0
1 case brandy.....	2	2	0
2 dozen stout (Guinness's).....	1	10	0
5 dozen ale (Bass's).....	3	15	0
2 dozen claret.....	3	10	0
1 dozen gin.....	1	7	6
2 bottles castor-oil.....	0	2	0
56 lbs. twist tobacco.....	3	14	8
28 lbs. small red beads.....	2	9	0
86 lbs. shot.....	3	4	0
25 lbs. gunpowder.....	4	7	6
20 boxes caps, 100 each.....	0	16	8
45 yards red serge.....	2	5	0
20 yards bleached calico.....	0	8	2
2 dozen red neckerchiefs.....	0	12	0
4 dozen looking-glasses.....	1	4	0
3 dozen boxes of matches.....	0	3	0
3 dozen 5-in. bush-knives.....	1	4	0
2 dozen 6-in. ".....	0	17	0
1 dozen forks.....	0	1	6
Sundry buttons, pins, needles, cotton, and thread.....	0	6	0
12 packets fish-hooks.....	0	4	0
7 lbs. French nails.....	0	3	6
Ink, paper, pens, and pencils.....	0	4	6
1 double-barrel gun.....	4	10	0
1 " ".....	2	5	0
2 single-barrel guns.....	2	10	0
1 camp oven.....	0	5	0
1 dozen axes with handles.....	0	7	0
1 dozen " without handles.....	0	12	0
1 English-made axe.....	0	1	10
2 American axes.....	0	10	0
1 chopper and saw combined.....	0	2	4
2 bars round and hoop iron.....	0	5	0
3 bars soap.....	0	3	9
2 files.....	0	1	6
1 pair canvas boots.....	0	5	0
1 dozen straps.....	0	4	6
1 cartridge-bag.....	0	3	6
1 bushman's knife in sheath.....	0	3	0
Tin plates, cups, and saucers.....	0	10	0
1 gallon spirits of wine and tin.....	0	10	0
1 ball of string and 1 of twine.....	0	1	0
3 lbs. arsenical soap.....	0	6	0
1 bottle quinine.....	1	0	0
1 jar Epsom salts.....	0	5	6
4 boxes Cockle's pills.....	0	6	0
2 bottles chlorodyne.....	0	4	0
Camphor, ginger, and oil.....	0	6	0

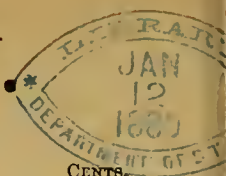
* The only article we ran short of, and felt its want.

THE END.

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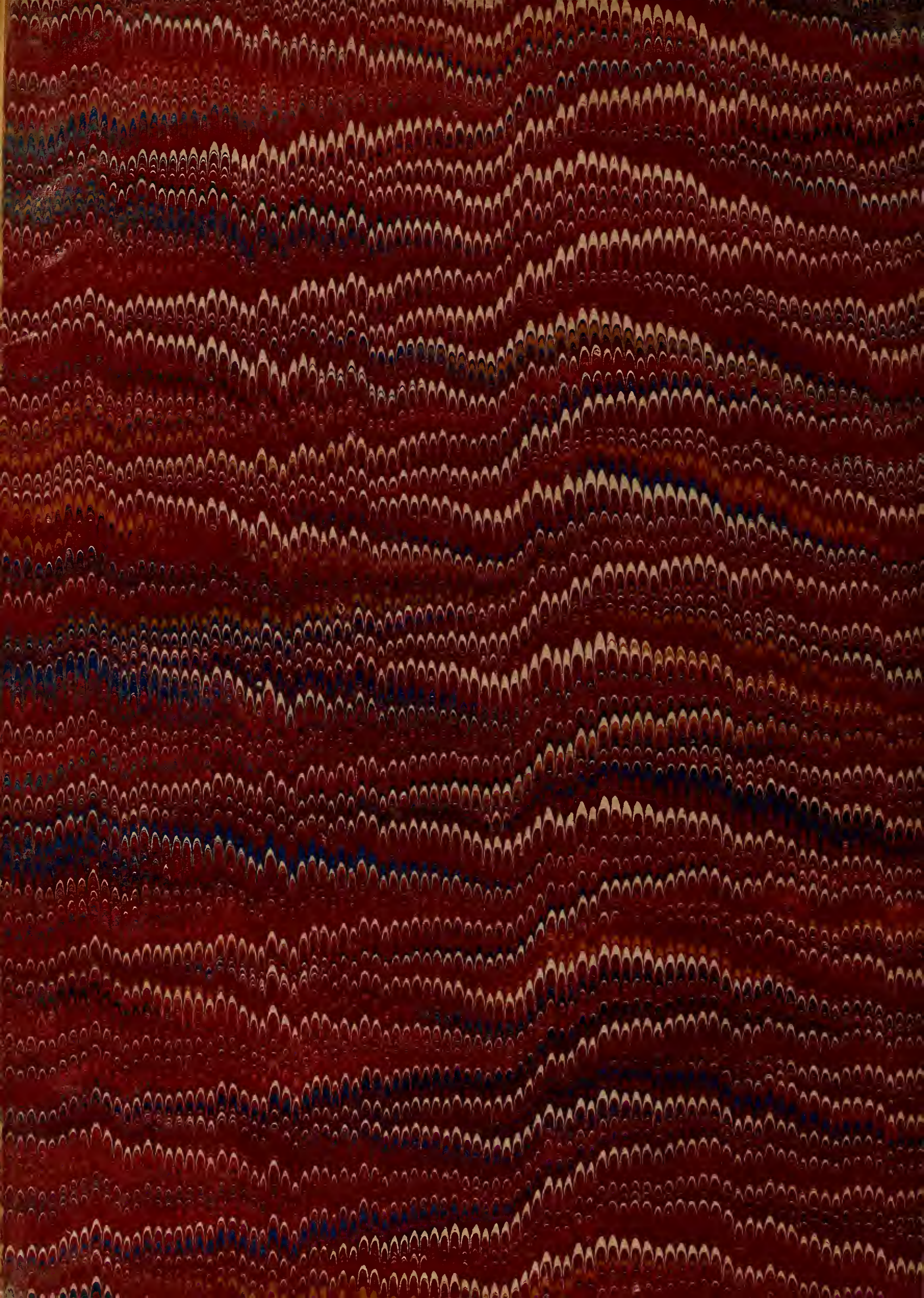
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